REPORT RESUMES

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PATHWAYS TO HEALTH CAREERS, EXPLORING HEALTH OCCUPATIONS AND PROFESSIONS.

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CAREERS IN THE AREAS OF DENTISTRY, DIETETICS, MEDICAL RECORD LIBRARY SCIENCE, MEDICAL LABORATORY WORK, MEDICINE, NURSING, OCCUPATIONAL THERAPY, OPTOMETRY, PHARMACY, PHYSICAL THERAPY, PODIATRY, PUBLIC HEALTH, RADIOLOGIC TECHNOLOGY, SOCIAL WORK, VETERINARY MEDICINE, HOSPITAL ADMINISTRATION, AND OTHER HEALTH OCCUPATIONS ARE DESCRIBED IN TERMS OF THE NATURE OF THE WORK, PERSONAL QUALIFICATIONS, EDUCATION AND TRAINING, AND JOB OPPORTUNITIES. ADDITIONAL SOURCES OF INFORMATION ARE PROVIDED FOR EACH AREA. BASIC INFORMATION ON FINANCIAL ASSISTANCE FOR EDUCATION IS SUPPLEMENTED BY A LISTING OF OTHER PUBLICATIONS TREATING FINANCIAL ASSISTANCE. APPROVED EDUCATIONAL PROGRAMS IN THE MIDWESTERN STATES ARE LISTED. (JK)

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Pathways to Health Careers,

Exploring Health

Occupations and Professions



HEALTH CAREERS COUNCIL OF ILLINOIS
400 North Michigan Avenue
Chicago, Illinois 60611

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INTRODUCTION

This book is entitled Pathways to Health Careers because it seeks to describe the main pathways (through education and training) into over 200 health occupations and professions. This book also focuses on the main pathways of work (principal occupations and professions) in the health field. No attempt is made to describe all of the occupations and professions.

Health is the nation's third largest industry, and in the next ten years it may well become the largest employer of the nation's work force. From 1950 to 1960, the number of people in the health occupations and professions increased by over one million.

This rapid growth in health services has led to greatly increased financial rewards for young people in the health field. You have only to look at stories in today's newspapers to read about specific instances where members of the health occupations and professions have attained recent major increases in salaries and earnings.

In view of continued upturn in the demand, the trend can be expected to spread throughout the health services. On the average, the health occupations and professions of today are competitive with occupations and professions in other fields, and young people interested in health careers can look forward to continued improvements in that competitive position.

The authors gratefully acknowledge the splendid cooperation of state and national professional associations and major employer associations in the health field, who have supplied and authenticated all materials contained in this publication through their staff members and representatives. Special mention is made of the work by representatives of the member organizations in the Health Careers Council of Illinois.

Our sincere appreciation is extended to Lutheram General Hospital (Park Ridge, Illinois) and Michael Reese Hospital (Chicago, Illinois), and to their staff members and patients, for cooperation in permitting us to photograph many of the health careers at work. We are also indebted to certain members of the health professions (and their patients and clients), who interrupted their professional practice to let us candidly photograph their work.



Dentistry

D.O.T. 072.

preserving oral health



Dr. Thorpe had just finished adjusting the braces on Susan's teeth when the telephone rang. "It's Mr. Powell", the dental assistant said. "He has a terrible toothache and wants to know if you can see him immediately, doctor".

Dr. Thorpe nodded "yes" to his assistant and walked with Susan to the door of the waiting room. The room was filled with a dozen patients—some requiring care for tooth cavities, others waiting to have their teeth professionally cleaned and examined, and a few with more serious disorders of the oral cavity which would require extraction and even minor oral surgery.

To supply this help, today's dentist—whose formal title is Doctor of Dental Surgery—must thoroughly understand the life cycle of the mouth and its tissues, and be able to alter scientifically their structure and functions to maintain health. He is well trained in the exacting art of restoration and treatment of the mouth as well as tooth extraction. The modern dentist can write prescriptions, advise on diet, and diagnose oral infections and disorders which may affect the general health and nutritional status of the patient. He is a biologist, pathologist, and surgeon; and perhaps most important, an advocate of prevention and public health measures.

The dentist of yesteryear was far different. As recently as the eighteenth century, barbers, goldsmiths and even blacksmiths were among the persons who took care of one's dental needs. And the history of dentistry goes back even further than that. Prehistoric drawings on cave dwellings tell weird stories of how witch doctors were called upon to drive away the evil spirits that caused toothache. Not until 1910, did an applicant to dental school even need a high school diploma!

Dental education today requires a minimum of two years of pre-professional education in an accredited junior or senior college. These first two years are taken up with such subjects as English, biology, physics, and inorganic and organic chemistry. Even before admission to predental study the student must have a high school education with proven proficiency in the natural sciences, mathematics, English, at least one foreign language and social studies.

Upon admission into dental school, education is concentrated in three major study areas:

- The basic sciences; anatomy, bacteriology, histology, pathology, pharmacology, and physiology.
- 2. Clinical training; during which you will learn and sharpen practical skills as well as study dental materials, diagnosis, endodontics oral anatomy and surgery, orthodontics and other related clinical subjects.

3. Orientation; such as the history of dentistry, practice management ethics, and jurisprudence.

The pre-professional and professional training takes at least six years, at the end of which time you are eligible for your D.D.S. (Doctor of Dental Surgery) degree. Upon receiving your professional degree and passing your state board examination, you can set up a general dental practice. Or, you may wish to continue with postgraduate studies which qualify you for one of the several dental specialties—public health dentist, oral pathologist (diseases of the mouth), oral surgeon (surgery of the mouth), orthodontics (teeth straightening), pedodontics (children's dentistry), periodontology (gum and tissue care), prosthodontics (making of dentures), and endodontics (root canal therapy).

In most cases postgraduate work is necessary to qualify for positions in teaching, administration and research.

Personal qualifications of today's dentist include good health, good judgment, artistic talent, and personal cleanliness. What's more, he must possess excellent manual dexterity—the ability to work with his hands. Successful dentists have an ability to get along with people and to inspire confidence in their ability.

To make certain that an applicant for studying dentistry has these personal and educational qualifications, the dental schools require completion of the Dental Aptitude Test, which has been devised by the Council of Dental Education of the American Dental Association. You are tested to determine your abilities and aptitude:

- 1. to read scientific information with comprehension
- 2. to use and understand the meaning of words
- 3. to reason with numbers and to use quantitative material
- 4. to demonstrate an understanding of basic scientific principles
- 5. to visualize the reconstruction of two and three dimensional patterns
- 6. to use your hands and fingers with dexterity

The testing program is given three times each year in over 100 locations. For more information about this test write the Council on Dental Education at 222 East Superior Street, Chicago, Illinois 50611.

What are the rewards of dentistry? While a dentist's income depends upon his location, skill, pursonality and the financial status of his patients, he may expect to earn as much if not more than persons in professions requiring equal professional training. Generally, dentists in both general and specialized practice realize earnings in the upper middle range of comparable health professions.

For more information on a professional career in dentistry, talk to your school counselor about your interests and abilities. Make certain your high school requirements will be met. Also, ask your own dentist about the advantages—as well as the disadvantages—of becoming a dentist. Observe his work, and, if the opportunity arises, accept part time employment or volunteer service in dentistry.

SOURCES FOR INFORMATION

American Association of Dental Schools 840 North Lake Shore Drive Chicago, Illinois 60611

Illinois State Dental Society 445 Iles Park Place Springfield, Illinois 62703

American Dental Association 222 East Superior Street Chicago, Illinois 60611

Division of Dental Health Illinois Dept. of Public Health 504 State Office Building Spring@eld, Illinois 62706



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Ave. Chicago, Illinois 60611





Other Careers in Dental Health

D.O.T. 078.368, 712.381, 079.378

The dental hygienist is the only one of the three kinds of auxiliary dental personnel who works directly in the mouth of the patient. She is the only one of the three who must obtain a license to practice. A major part of the work is dental prophylaxis—the scaling and polishing of the teeth. She also performs topical movide applications. The work includes informing the patient concerning individual dental needs, the importance of good home care, diet and nutrition for good mouth health, and methods and aids for toothbrushing and gum care.

Assisting the dentist in determining dental treatment needs and reporting these findings are frequently added to your responsibilities when working for school systems or in other institutional settings. In a private office other responsibilities might include exposing and processing dental x-ray films, acting as a receptionist and assistant, and carrying out certain beloratory procedures.

Two pathways of professional education are offered in dental hygiene. One results in a certificate, diploma or associate degree in dental hygiene, and the other offers a baccadaureate degree. A position in a dental office can be secured at the end of the former pathway, while the latter is necessary for a position in public health, teaching in a school of dental hygiene, or in school health.

Basic science courses are usually concentrated in the first year of study, with the second year devoted to dental science courses and clinical practice of skills. General anatomy, physiology, dental anatomy, histology, chemistry, bacteriology, pathology, pharmacology, nutrition, hygiene, public health, ethics and economics, first aid, speech fundamentals, English composition, sociology, psychology, clinical dental hygiene, and dental health education are subjects that are covered.

A graduate dental hygienist is required to take a licensing examination before going into practice. The examination consists of both written and practical tests and is given by the State Board of Dental Examiners in each state. After receiving her license, the dental hygienist will find many employment opportunities open that v/ill satisfy her particular conditions. This variety of opportunity is expected to maintain itself for many years ahead.

The dental laboratory technician is a supporting craftsman to the dentist. He works under the supervision of the dentist—permitting the dentist to devote more of his time to direct patient care. Dental laboratory technology is divided into five basic areas; complete and partial denture construction, crown and fixed bridgework fabrication, gold or other precious metal cast partials, individual porcelain and acrylic restorations, and orthodontic appliances.

Technicians are responsible for making crowns and bridges. They arrange artificial teeth on dental appliances so they will appear natural and function properly. In creating his products, the dental technician works with a wide variety of materials—from processing plastics to mak-

ing castings of gold. In working with these materials the technician employs a vast array of tools. He uses small hand tools, high temperature furnaces, drills, electric lathes, and many other pieces of equipment.

A high school education is the minimum requirement to enter this field. You can begin your career learning with on-the-job training in a commercial dental laboratory. The training period will usually last three or four years depending on your ability and previous experience.

A more desirable pathway is to enroll in a one or twoyear training program in Dental Laboratory Technology. Formal classroom instruction takes up much of the first year; in such courses as ceramics, chemistry, medical law and metallurgy. This is followed by 12 months of supervised practical experience in a school or dental laboratory. Three additional years of experience are necessary before the technician is eligible to take the examination for certification. A better education usually means better skills, and highly skilled dental laboratory technologists are in great demand.

Talk with your dentist, school counselor and parents about a career in dental laboratory technology. High school courses in art, blueprint reading, plastics, metal-working and physiology are good credentials. Good vision with the ability to perceive fine distinctions in color, depth and texture are important. You will also need a high degree of manual dexterity.

The trained dental assistant wears many hats in today's busy dental office. You help in exposing and processing x-ray films. In the laboratory you help make dental appliances, cast inlays and models of the mouth. You also serve as secretary, receptionist, and bookkeeper.

Some dental colleges, junior colleges and vocational and public schools offer training in dental assisting. You can obtain an Associate of Arts degree from a junior college by successfully completing a two-year program in dental assisting.

A sound educational program will include lectures and laboratory practice in dental anatomy and dental technique. There will also be related science courses in elementary bacteriology, chemistry and nutrition.

A good educational background will reap dividends in gaining early certification and acceptance of your employment credentials in other communities. Employment oppor-

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tunities are excellent, and are expected to remain high during the coming years.

To find out more about these careers, discuss your interests and abilities with your school counselor and your parents. Your dentist will be pleased to discuss them with you, and will assist you in meeting people who currently are employed in them. Part time employment in a dental office can offer excellent opportunities to acquire detailed knowledge of the fields. For dental hygiene, a Dental Hygiene Aptitude Testing Program should be completed as a means of determining highly qualified applicants for schooling.

The importance of these auxiliary careers in dental health will continue to grow as the dentist increasingly relies upon them in serving the dental health care needs of a growing population. There is a place for you on this dental health care team.

SOURCES FOR INFORMATION

American Dental Association Council on Dental Education 222 East Superior Street Chicago, Illinois 60611

National Association of Dental Laboratories, Inc. 734 15th Street, N.W. Washington, D.C. 20006

Illinois State Dental Society 445 Iles Park Place Springfield, Illinois 62703

American Dental Hygienists' Assn. 100 East Ohio Street Chicago, Illinois 60611

American Dental Assistants' Assn. 410 First National Bank Building LaPorte, Indiana 46350



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611



Dietetics

D.O.T. 077

making food count



A dietitian is a specialist in the science of foods and nutritional requirements of human beings. The department of dietetics in a large hospital, with a number of dietitians, may offer opportunities for specialization in as many as five major areas.



A therapeutic dietitian is responsible for the planning, supervising and preparation of foods for patients, many of whom are on modified diets. She investigates the nutritional requirements and problems of patients by consulting with the physician and nurse. She also visits patients to explain the diets to them, to encourage them to improve their eating habits and to advise them on following dietary instructions after they leave the hospital.

Clinic dietitians are concerned with diet therapy, guiding and teaching patients who are not hospitalized, but are referred by their doctors to the outpatient clinic for treatment.

Administrative dietitians supervise the food service of the entire hospital—for both patients and personnel. They are in charge of purchasing food and supplies, employing and training department personnel, setting up work schedules, and supervising the preparation of service of food.

The teaching dietitian, sometimes called the director of dietetic internship, coordinates the nutrition education program and teaches some of the courses. With other staff members she plans courses for medical, nursing and dental students, dietetic interns, patients, and the hospital's professional staff.

The research dietitian, is concerned with nutritional studies—conducting scientifically controlled studies on particular diets.

In a small hospital, the dietitica usually wears the hats simultaneously of the therapeutic and administrative dietitians.

Other employment settings for dietitians include government services, such as the Veterans Administration, the Armed Forces, and public health. College and university food services, schools, nursing homes, mental health facilities, business organizations, commercial food services (hotels and restaurants, for example), and industrial food services use the professional knowledge and skills of dietitians.

Community Nutritionists are prepared through education and experience to interpret the science of nutrition into

specific, understandable instructions for co-workers and the public to follow. Community health and welfare agencies employ them to provide helpful instructions for families unable to obtain satisfactory information in buying, preparing and serving food. A public health nutritionist is employed in city, county, state or federal public health programs.

Teaching in colleges and universities subjects in foods, nutrition and institution management offers many more opportunities. A master's degree is a basic requirement for these positions. An advanced academic degree is the key to research in foods and nutrition. Positions are found in nutrition research laboratories of medical centers, colleges, business organizations, and governmental agencies.

Personal qualifications for dietitians include the ability to get along well with all types of people. You should like good food and have an artistic appreciation of high standards of cookery. You probably enjoy sharing knowledge with others, and you like to know about the composition of foods and the aspects of food production.

Education for a dietetics career begins with a college preparatory course. Additional subjects, such as biology, chemistry or physics, will help you heighten your interest in the sciences that will be needed in college.

During your college education, courses in physiology, bacteriology and chemistry help you gain knowledge of the human body and the effects of foods. In nutrition courses you learn about food nutrients, their uses and amounts needed to maintain health. Economics, psychology, personnel relations, teaching principles and the social sciences are other subjects taken during college.

A dietetic internship is required after meeting academic requirements and earning your baccalaureate degree. You may choose one of three types; dietetic internship (general hospital dietetics), nutrition clinic internship, and food service administration internship. If the internship is affiliated with a college or university, graduate credit toward a master's degree may be earned during this period.

Successful completion of the internship means that you can apply for membership in the American Dietetic Association and register with their Credentials Service. This service preserves educational and experience records which can be made available to employers.

Opportunities for dietitians far outstrip the number of dietitians seeking new positions. In general, salaries are comparable with other fields requiring similar investments in education and skills.

You can find out more about dietetics by visiting with dietitians in your community hospital. Raise questions with them about their interests and the advantages and disadvantages of their work. Discuss your interests and abilities with your school counselor and parents. Obtain catalogues from colleges and universities that can prepare you for a dietetic internship, and follow up on your studies with a visit to those which meet your needs.

SOURCES FOR INFORMATION

The American Dietetic Association 620 North Michigan Avenue Chicago, Illinois 60611

Careers in Dietetics Health Careers Council of Illinois 400 No ... Michigan Avenue Chicago, Illinois 60611



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Medical Record Library Science

keeping the record straight—for health's sake

Physicians and nurses at Community Hospital rely heavily on the medical record department for answers to such requests as:

"Please get me the medical record of James Forsythe, the cancer patient of six weeks ago. He's just been readmitted and we need to check his medical history quickly."

"Do you have a copy of that new insurance reporting form? Dr. Johnson called today to inquire if the new form had been explained to the staff."



"According to our treatment records, would one poison control center serve the needs of the entire community?"

The medical record librarian is the person who responds quickly and expertly to all of these requests. The medical record is a permanent document of the history and progress of a person's illness or injury, especially compiled to preserve information of medical, legal and scientific value. It is a compilation of observations and findings recorded by the patient's physician and other members of the protessional hospital staff. While these reports originate at various points throughout the hospital, the medical record librarian sees to it that they are entered in orderly fashion in the individual patient's record and that they are readily available for quick, accurate reference.

Her work is of vital importance to many people. For the patient, medical records—made available to the doctor at a moment's notice—are often essential to accurate diagnosis and rapid treatment of present and future illness. The community also benefits, for these records form a concise index for informing public health officials on community health conditions and disease trends.

In her average work day, the medical record librarian receives the records of many patients when they are discharged. She first checks the record for properly completed forms, which include the doctor's written diagnosis of the case, x-ray and other laboratory reports, and the personal data as well as previous medical history of the patient. The reports—received from the surgeon, anesthetist, floor nurse, and pathologist—contain temperature charts, cardiograms (a record of the heart's action) and even information from the dietician on how and what the patient ate during his hospital stay.

It is up to the medical record librarian to see that the record is complete, written in standard terminology, and that all entries are signed by the persons who made them. According to a proper code classification of the disease and/or operation, the medical record librarian then files the patient's medical record. This same record is crossindexed as to the doctor's name, the hospital number assigned at admission, and the patient's name.

The medical record librarian is a bona fide member of the hospital's administrative staff, supervising assistants, designing appropriate filing systems, analyzing records, releasing records to authorized persons, and frequently taking part in staff meetings where her carefully compiled records help to establish or correct hospital policies.

Personal qualifications needed by a medical record librarian include mental agility, a liking for a quiet, scholarly atmosphere in which to work, the ability to raster medical and technical terminology, and to work harmoniously with medical personnel. You also should have a natural aptitude for details and close precision work.

Your preparation for a career as a medical record librarian begins in high school, with an emphasis in such subjects as the natural sciences and mathematics, balanced with courses in English, social studies, shorthand, and

typing.

Qualifying as a professional registered record librarian is accomplished in two steps. First, you must successfully complete a program in medical record science or medical record administration in a school approved by the American Medical Association. Then you must successfully complete a professional examination. Approved programs fall into three major groups:

1. For the high school graduate: College or university programs which lead to a bachelor's degree with a major in medical record science or medical record administration.

2. For the college student: 12-month hospital school programs which offer a certificate in medical record science or medical record administration to individuals who have completed two years (60 credit hours) in an accredited college or university, or

3. For the college graduate: Postgraduate programs which offer a certificate in medical record science or medical record administration after 12 months of study to individuals who already have earned a bachelor's degree.

The curriculum will vary from school to school, but in general the emphasis is on anatomy aim, physiology, medical terminology, medical record science, statistics, medical law, administration, and the history of medicine. Liberal arts subjects such as English, natural science, foreign languages and social studies are taken in pre-professional college training.

Completion of an approved program qualifies the student to take the national registration examination given by



the American Association of Medical Record Librarians. A satisfactory grade results in awarding the designation RRL

(Registered Record Librarian).

Medical Record Technicians, in addition to Medical Record Librarians, also form an important part of the hospital's accurate record keeping. One may become a medical record technician by completing a one-year course in an approved school for medical record technicians. Only high school graduates are qualified to enroll. Upon successful completion of the required studies, candidates are eligible to take a national accreditation examination given once yearly by the American Association of Medical Record Librarians. Upon successful completion of the test, candidates may add the initials ART (Accredited Record Technician) to their names, as proof of their high qualifications.

Job outlook and salaries for both RRL's and ART's are excellent. The current shortage of qualified medical record personnel is expected to increase due to the growing number of hospitals and increased complexity and volume of medical records. All of these factors add up to a wide choice of well paid jobs in desirable communities. Right now, salaries for both RRL's and ART's stand apace of

other positions requiring similar training.

If you are interested in "helping to keep the record straight for health's sake," talk over your plans and aptitudes with your high school counselor and parents. Visit the record department of your local hospital or nursing home. Observe the work of medical record librarians and find out more about the required educational preparation by visiting an approved school.

SOURCES FOR INFORMATION

American Association of Medical Record Librarians 840 North Lake Shore Drive, Chicago, Illinois 60611 Careers in Medical Record Library Science Health Careers Council of Illinois 400 North Michigan Avenue, Chicago, Illinois 60611



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Medical Technology

detecting disease

D.O.T. 078.281

Nancy Ingram enjoys her work. She always liked working around people, but never considered herself "outgoing." In high school she held a keen interest in science and enjoyed reading about and doing experiments on the application of science to medicine. Yet, she did not feel comfortable in considering a career as a physician or nurse because of the need for continuing, close contact with patients. She felt much more at home in the high school laboratory.



Today, Nancy is a medical technologist. She enjoys her work in the hospital's laboratory because she is able to apply her scientific knowledge in the service of human medicine without continuing patient contact. Other medical technologists enjoy patient contact, so there is room in medical technology for a variety of personalities.

Medical technology is one of the newest and fastest growing professions associated with modern advances in medical science, coming of age since World War II. Medical technologists perform scientific, fact-finding tests in the clinical pathology laboratory that help track down the cause and cure of disease.

For example, they examine the blood chemically for cholesterol, and microscopically for lukemia. They culture bacteria to identify disease-causing organisms, analyze the chemical composition of urine for diabetes and of spinal fluid for polio. Nuclear medicine has opened up new areas of study, in the use of radioactive isotopes to help detect cancer and other diseases.

To become a medical technologist requires at least three years of college, including 16 semester hours each of approved chemistry and biology courses and one course of mathematics. This college preparation is followed by 12 consecutive months in a School of Medical Technology approved by the American Medical Association. Only graduates of these schools are eligible for MT(ASCP) certification, given to those who pass the examination of the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists.

Confusion over registries and professional organizations for medical laboratory personnel exists to a considerable extent. There are no shortcuts to becoming a medical technologist. As has been indicated, the standards for education have been carefully established by the American Medical Association and the American Society of Clinical Pathologists (ASCP). Accreditation of schools is the responsibility of the AMA and the Board of Schools of Medical Technology of ASCP (Galveston, Texas), the only

accreditation recognized by the National Commission on Accrediting which represents 1,270 colleges and universities

National certification examinations are given semi-annually by the Board of Registry of Medical Technologists of the ASCP (Muncie, Ind.), the successful completion of which permits the use of the professional designation MT(ASCP). The professional organization of certified medical technologists is the American Society of Medical Technologists (Houston, Tex.). ASMT is a member of the long established International Association of Medical Laboratory Technologists (Zurich, Switzerland).

There are three self-constituted registries for medical laboratory personnel in various sections of the country. These have been organized without sponsorship by or affiliation with any organized medical group.

The American Medical Technologists, MT, (Park Ridge, Ill.), the International Registry of Independent Medical Technologists, IMT, (Enid, Okla.), and the Registry of Medical Technologists of the International Society of Clinical Laboratory Technologists, RMT, (St. Louis, Mo.)—each will grant registration to high school graduates based upon varying combinations of experience and/or commercial school or other training, plus an exam. These registries also serve as membership organizations with elected officers, conventions, etc.

AMT has formed an Accrediting Bureau, and RMT has set up an Accrediting Commission, for commercial or private schools. A National Council of Medical Technology Schools (headquarters presently unknown) was formed by a group of commercial schools. An Accrediting Commission for Medical Technology Schools, originally founded by the Council, was incorporated in 1962, in Cleveland, Ohio, by employees of a commercial school of medical technology.

The close approximation of these designations are responsible for much of the confusion. Obtaining your ducation in an AMA approved school, and your profes-

sional designation at one of over 40,000 MT(ASCP)'s in the United States (after successfully completing the Board of Registry of Medical Technologists examination) means that you have met the professional standards recognized by the medical profession

Employment opportunities for MT(ASCP)'s are excellent. In the forseeable future, the demand will continue to exceed the supply. Current shortages are resulting in rapidly rising salaries—salaries that already compare very favorably with those of other professions requiring similar investments in education and skills.

To find out more about a career in medical technology, discuss your interests and abilities with your parents and school counselor. Talk with professional MT(ASCP)'s in your community hospital. Raise questions with them about their work, your school studies, and their background. Visit one or more schools of medical technology in your area to answer questions about your future schooling.

With sound educational preparation, a bright career in medical technology is open to you.

SOURCES FOR INFORMATION

Registry of Medical Technologists Box 2544 Muncie, Indiana 47302

Careers in Medical Technology Health Careers Council of Illinois 400 North Michigan Avenue Chicago, Illinois 60611



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20



Other Careers In The Medical Laboratory

D.O.T. 078.



The Certified Laboratory Assistant (CLA) performs the simpler, more routine tests in the laboratory. The laboratory assistant works under the direct supervision of the medical technologist and pathologist, performing routine laboratory procedures in bacteriology, blood banking, chemistry, hematology, parasitology, serology and urinalysis.

Specific tasks might include collecting blood specimens, grouping and typing blood, preparing and staining slides for microorganisms, concentrating specimens for parasitologic study, analyzing blood and body fluids for chemical components, microscopic examination of urine, blood and body fluids, and taking electrocardiograms and basal metabolism tests.

Graduation from an accredited high school, preferably with ability and interest in science and mathematics, is required for admission to an approved school (one approved by the American Society of Clinical Pathologists and the American Society of Medical Technologists) for certified laboratory assistants. The course of training is 12 months long, and includes a minimum of 100 hours of formal instruction, plus 40-44 hours per week of laboratory training.

Pay scales vary, but compare favorably with other technical occupations in the health field requiring similar investments in skill and education.

The Cytotechnologist, CT (ASCP), screens slides on which there are human cells, looking for abnormalities that are warning signs of cancer. The expert eyes of the cytotechnologist trace clues to disease in the delicate patterns of cytoplasm and nucleus, stained with special dyes to make them stand out brightly, and magnified a thousand times.

There are about 80 AMA approved Schools of Cytotechnology in the United States. Prerequisites include at least two years of college with 12 semester hours in biology. The prescribed cytotechnology course provides for a minimum of 12 months education and training, with six months in an approved school and the balance working under supervision in a cytology laboratory.

Upon successful completion of the formal curriculum and apprenticeship, a certifying examination is given by the Registry of Medical Technologists. Opportunities for employment continue to run well ahead of the supply of new graduates. The significance of this field is increasing rapidly as the public increasingly recognizes the value of regular examination in the prevention of cancer deaths.

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The Histologic Technician, HT (ASCP), cuts and stains tissues which have been removed from the body, so that they can be examined miscroscopically by the pathologist for signs of malignant or questionable cells.

To become a histologic technician you should contact the pathologist in your community hospital about the possibility of learning this specialty. It requires a high school diploma plus a year of supervised training in a clinical pathology laboratory to qualify for the examination given for limited certification by the Board of Registry of Medical Technologists.

Specialist Certification is awarded to specialists in specific sciences. For example, a specialist in chemistry would be listed as a Spec. C. (ASCP). Specialist Certification requires a master's or doctorate degree in the specialty, plus three years experience in an acceptable medical laboratory. An examination by the Board of Registry of Medical Technologists also must be completed successfully.

The Blood Banking Technologist, MT (ASCP)BB, must first be a certified medical technologist, MT(ASCP). One year of additional training in a blood banking school approved by the American Association of Blood Banks is given, and the graduate must successfully complete an examination by the Board of Registry of Medical Technologists.

The Chemistry Technologist, C(ASCP), has obtained a B.S. degree in chemistry, and added to it one year's experience in chemistry in an acceptable medical laboratory. An examination by the Registry also must be completed successfully.

A certificate in Microbiology, M(ASCP), is awarded upon completion of a Registry examination by an individual with one year's experience in microbiology and a B.S. degree in bacteriology.

A Nuclear Medical Technologist, NMT(ASCP), has several alternative pathways to certification. In each instance you must pass the Registry examination. A certi-

fied medical technologist, MT(ASCP) qualifies with one year experience in an acceptable clinical radioisotope laboratory. An individual with a B.S. degree in biologic sciences or chemistry plus two years experience in an acceptable laboratory meets the prerequisites. Two years of college with specified science courses and four years experience can fulfill the requirements. A B.S. degree in physical sciences with specified science courses and two years experience will also measure up.

More information on any of the careers described above can be obtained by talking with the pathologists and medical technologists in your community's hospitals. For detailed information you will wish to visit one or more schools of medical technology, or various university or college departments affiliated with a medical school. Discuss your interests and abilities with your school counselor and your parents. Seek out opportunities to observe and perhaps participate in the work of a medical laboratory.

Whatever your educational aspirations, if you enjoy laboratory science there is a career for you in the medical laboratory.

SOURCES FOR INFORMATION
Registry of Medical Technologists
Box 2544
Muncie, Indiana 47302
Careers in the Medical Laboratory
Health Careers Council of Illinois
400 North Michigan Avenue
Chicago, Illinois 60611



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611



Doctor of Medicine

heading the health team

D.O.T. 070



Scientific medicine began with the ancient Greek Hippocrates (460-370 B.C.). But medicine is even older—going back to the first dawnings of civilization. It is a human endeavor of constant challenge and great achievements, but always more challenges must be faced. It is this continual advancement and challenge (and its dedication to the safeguarding of human life) that gives medicine its strongest appeal.



Today, we live in what is termed the "golden age of medicine." Since 1900, medicine has made more advances in maintaining health and preserving life, than in all of man's previously recorded history. In recent years the big killers, such as poliomyelitis, pneumonia, influenza, and tuberculosis were curbed. Medical horizons now reach out on the frontiers of aging, heart disease, and space medicine.

Your qualifications for this field should be carefully considered. Ask yourself: Am I a good student? Do I possess a high degree of scientific curiosity? Do I have sufficient emotional and physical strength and self-discipline to withstand long, hard hours of study and work? Am I genuinely interested in helping people? And, am I objective enough to face and carefully weigh all of the facts before I act? "Yes" answers to these questions represent your first step toward a medical career.

Preparing yourself academically is the second step, and begins with high school. Your high school credits should include four years of English, at least two to three years of laboratory science (chemistry, biology, physics), three years of mathematics, two to four years of a modern foreign or classical language; and two to three years of social studies.

With these academic qualifications you are prepared to enter the next major phase of your training-entrance into a college of arts and sciences. Your pre-medical studies should comply with the requirements set down in Medical School Admission Requirements, a copy of which is available by writing to the Association of American Medical Colleges listed below. An undergraduate (Bachelor's) degree in an accepted pre-medical curriculum plus four years of medical school is usually recommended for the Doctor of Medicine degree. The most popular choices of majors in the pre-medical course are biology, the physical sciences, humanities, and pre-medical programs that "build in" all requirements for medical school. Applying fer medical school should be done approximately one year prior to the beginning of the academic year in which you wish to enroll. In addition to academic qualifications, acceptance is based on recommendation and the Medical College Admission Test, given twice yearly at colleges with pre-medical programs.

Medical school education, once the candidate has been accepted, constitutes four years of concentrated study. The first two years are largely given over to "pre-clinical"

studies in basic medical sciences such as biochemistry, anatomy, microbiology, pharmacology, physiology, pathology, and genetics. Beginning with the third year, he studies clinical subjects which include surgery, internal medicine, psychiatry, radiology, public health, preventive medicine, obstetrics, gynecology, and others.

During the third and fourth years of study, the medical student becomes more familiar with the practice of medicine, spending most of his time in hospital wards under the instruction and supervision of members of the faculty and attending physicians. We takes patient histories, performs physical examinations, outlines and records diagnostic impressions and does laboratory work.

Internship training currently follows graduation from medical school for the young physician. The 12 to 24 month period is spent in a teaching hospital in one of three kinds of programs. The great majority of physicians serve rotating internships that include the clinical areas of medicine, surgery, pediatrics, obstetrics-gynecology, and others. Mixed internships add pathology or psychiatry to two or three of the clinical areas immediately above for their programs. A single medical service is focused upon in a straight internship—for example, internal medicine or surgery.

Residency training after internship is the key to specialty practice. There are 35 medical specialties and sub-specialties, and any of them may be acquired with the addition of two to five years of additional hospital training. The 20 major fields of medical specialization recognized by the American Medical Association are administrative medicine, anesthesiology, colon and rectal surgery, dermatology, internal medicine, neurological surgery, obstetrics and gynecology, physical medicine and rehabilitation, plastic surgery, preventive medicine, psychiatry and neurology, radiology, surgery, thoracic surgery, and urology.

Securing a state license to practice medicine, after completing internship and/or residency training, is accomplished through examination by the proper state department.

Usual daily tasks of the physician in his office practice include the examination, diagnosis, and medical or surgical treatment of patients. Prescriptions must be written, counsel given, x-rays examined, diagnostic tests interpreted, and visits made to patients in the hospital. The physician also



is involved in the prevention of disease. Should disease occur, the physician will then strive to return the patient to maximum function through rehabilitation. Supervision is provided for office and hospital personnel in the physi-

cian's role of leader of the health team.

Whether a physician chooses general practice, one of more than 20 Board specialties, or selects research, teaching, administration, industrial health, schools, public health, or the Armed Forces, as the setting for his practice of medicine, financial as well as personal rewards are deservingly good. (It should be remembered, however, that the career of medicine demands much in time and effort from its members.) Even greater opportunities lie ahead as a result of advances of medical research, expanded national health programs and a continually growing population.

Find out about medicine as a career by asking your personal physician about the rewards, qualifications, advantages and disadvantages of the medical profession. His knowledge of you and of medicine should give you some insight on your interests and abilities. You will also want to discuss your feelings and observations with your parents

and school counselor.

SOURCES FOR INFORMATION

American Medical Association
535 North Dearborn Street
Chicago, Illinois 60610
Association of American Medical Colleges
2530 Ridge Avenue
Evanston, Illinois 60201
Student American Medical Association
1910 Ridge Road
Homewood, Illinois 60430
Illinois State Medical Society
360 North Michigan Avenue
Chicago, Illinois 60601



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611





Nursing

helping people to live D.O.T. 075.

"Helping people to live" is the description which Florence Nightingale first gave to the profession of nursing. Through her leadership and that of many nurse leaders and physicians who followed, nursing became the first and largest of the supporting health care services. Its beginnings stretch back over 100 years during the Crimean War.

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Nursing requires good physical health and maturity of judgment. Dependability, emotional stability, a sensitive awareness of human wants backed by an objective ability to perceive human needs, and a deep responsibility to preserve life and contribute significantly to the well-being of patients are other qualities essential in a nursing career.

Preparation for nursing is open only to high school graduates, and preferably to those who finish in the top third or half of their classes. A college preparatory course is recommended, including English, science, mathematics, and social studies. Individual requirements of nursing schools vary, so it is a good idea to check the requirements of schools of your choice early. Pre-entrance tests are required, varying with the school selected, from college board examinations to pre-nursing tests.

There are three pathways to becoming a graduate nurse. Two years of education in a junior or community college is required for an associate degree in nursing. Your studies place major emphasis on nursing theory and practice. General education courses, including the sciences, are taught in a college environment, providing frequent contact with students in other fields. Since practical experience with patients is more limited in this program, the associate degree graduate may spend a longer time in orientation in her first position to achieve a certain skill level as a general duty nurse.

A hospital or independent school may be the site of a diploma school of nursing. Three years of education are required with nursing theory and practice given prominence in the curriculum. Some general education subjects including biological, physical and social sciences are taught as well. The graduate's diploma indicates preparedness for general duty nursing.

A baccalaureate degree in nursing requires four years of education in a college or university. The student majors in nursing, including theory and clinical practice. General courses in the arts, sciences and humanities required in the major and for the degree are a part of the regular college curriculum.

The education received in this program is broader than the other programs described. Graduates are prepared for beginning positions in hospitals, public health agencies and clinics. This degree is required for positions in public health nursing.

The baccalaureate degree also leads directly to graduate study in nursing—to programs leading to a master's or doctoral degree. Graduate study is also required for advanced clinical practice in specialties of nursing. Advanced study is the key to many positions in teaching, administration, and other leadership responsibilities.

Graduation from a school of nursing following one of three pathways qualifies the nurse to take the state board examination. Successful completion of the examination entitles the nurse to practice in that state and to use the title of "R.N."

Your responsibilities as a graduate nurse usually begin with general duty nursing in a hospital. Acting under the direction of a physician, the general duty nurse plans the patient's nursing care in the hospital. Her expert knowledge and skill may be required in more constant care with a critically ill patient. Teaching patients to take part in their own therapy is a responsibility of the nurse. Practical nurses, aides and orderlies also look to the professional nurse for supervision and instruction.

The goal of public health nursing is better health for all citizens of the community. Employed by public health departments, other government agencies and voluntary agencies, public health nurses work in homes, schools, clinics, commerce and industry.

The demand for teachers of nursing is very great, and a variety of positions are readily available. Adequate preparation suggests a master's degree for teaching positions with a substantial future.

Thousands of nurses also are employed in physicians' offices, the offices of other health professionals, and in private duty positions. The Armed Forces, home and foreign mission services, international health agencies, re-

search centers, and airlines are only a few of the many other career possibilities open to the professional nurse.

Salaries and working conditions are rising rapidly. Beginning salaries vary greatly with the choice of employment location. Generally speaking, salaries compare very favorably with those of other professions requiring similar investments in knowledge and skills.

Start your investigation of nursing education programs early in your high school days. Talk with your parents, school counselor, and with nurses about your interests and abilities. Members of the nursing associations are particularly well equipped to answer your questions and refer you to sources for assistance.

Write for the catalogues of nursing schools which interest you, and make appointments to visit several of them to find out more about life as a nursing student. Your time spent in investigation of nursing and older health careers will return big dividends in assured career development tailored to fit your interests, abilities and needs.

SOURCES FOR INFORMATION

Illinois League for Nursing 6355 North Broadway Avenue Chicago, Illinois 60676

Illinois Nurses Association Six North Michigan Avenue Chicago, Illinois 60602

Chicago Council on Community Nursing Eight South Michigan Avenue Chicago, Illinois 60603



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611



Licensed Practical Nursing

D.O.T. 079.378

a practical answer



Maxine wasn't interested in attending college. Nursing rad always appealed to her, but the minimum of two years of college to become a nurse did not fit her plans. Even hough her high school grades would qualify her for college, Maxine's vocational interests placed a premium on assuming work responsibilities as quickly as possible.

Maxine found a practical answer in nursing for her interests—as a Licensed Practical Nurse. Sure, she did have to attend a school for a year, but in checking around Maxine found that all jobs had a training period. By attending the school for L.P.N.'s you not only are preparing for a career in nursing, but after passing a state examination at the end of the training you receive a certificate as proof of your qualifications.

Your nursing care duties as an L.P.N. include bathing and feeding patients, taking temperatures and pulses, giving medication and treatments and observing and reporting symptoms to the nurse or physician. There is a good variety of duties and settings for your work.

In a hospital you may be helping babies get their start in life. Changing them, dressing them, helping them in their first attempts to eat, and giving inexperienced mothers advice on care and feeding are major aspects of your work in the maternity ward. Your assignments in a surgical service include assisting in preparing patients for operations, helping nurses and physicians during operations, and observing reactions and giving care as patients recover from anesthesia. In a pediatrics ward you act as a substitute mother, helping to overcome the fears of children and setting them on the road to recovery through patience, understanding and detailed care.

In a private home your responsibility is the nursing care of the patient. You may be the temporary bulwark for the family unit as well. Your pleasant and efficient care for the patient in the home can generate a pleasant atmosphere that keeps things running well in spite of the loss through illness.

"patient." You make home visits alone and confer with the public health nurse concerning progress and needs. Daily dressings for the wife of an elderly couple makes it possible for them to stay together since she would otherwise have to be hospitalized. An ailing mother can stay at home with her six-weeks-old son because you spend

time each day giving her nursing care, bathing the baby, and preparing his formula.

In a physician's office you are the doctor's assistant. You get patients ready for examinations, prepare and give injections and generally contribute to the efficient and pleasant management of the office.

Personal qualifications that you should possess in order to be successful as an L.P.N. should include common sense, adaptability, reliability, high moral standards and good personal habits. You should be outgoing and tactful, and like helping people.

To become an L.P.N. you must complete an approved one year educational program and obtain your state license. High school graduation is the preferred academic qualification, although many schools will accept candidates with two years of high school. Practical nursing schools may be found in public schools, vocational schools, or as a part of adult education programs. Schools run by hospitals, health agencies, community organizations and community colleges are also common.

Your classes in nursing theory should be closely related to practice sessions in a community hospital or other agency. You will have other courses in body structure and function, personal hygiene and community health, nutrition, and ethical and vocational relationships. Following successful completion of your year of schooling and a state examination, you are entitled to wear the sleeve or cap insignia that identifies you as a qualified Licensed Practical Nurse.

The beginnings of licensed practical nursing rest not many years in the past. In 1930, there were only 11 state approved programs of practical nursing. Today, approximately 35,000 students are enrolled in nearly 1,000 state approved programs.

Employment opportunities, however, still exceed the supply. The L.P.N. has become the mainstay of bedside nursing care, and therefore is needed for a great many

positions in the health field. Current economic trends suggest that employment opportunities will continue to exceed the supply for many years to come. Salaries are generally competitive with other occupations requiring similar investments in education and skills.

Test your interest in this field by working as a nurse's aide in a hospital or by volunteer service with a hospital or health agency. Join your health careers club or Future Nurses Club in school. Visit with L.P.N.'s to find out more about their work. Talk with your parents and school counselor about your interests and abilities.

Visit various schools in your area before selecting one. Remember, that only approved programs qualify you to take the state examination. Correspondence courses are out. They do not qualify you for the examination since they cannot provide supervised clinical experience.

SOURCES FOR INFORMATION

Committee on Careers
National League for Nursing
10 Columbus Circle
New York, N. Y. 10019

Illinois League for Nursing 6355 North Broadway Avenue Chicago, Illinois 60676

Chicago Council on Community Nursing Eight South M'chigan Avenue Chicago, Illinois 60603

Licensed Practical Nursing Health Careers Council of Illinois 400 North Michigan Avenue Chicago, Illinois 60611



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611







Occupational Therapy

restoring physical independence

D.O.T. 079.128

It had all started like a bad cold, but they discovered that eighteen year old Dorothy Jansen had bulbar and spinal poliomyelitis.

Particularly rewarding to Dorothy during her long recovery were her sessions with the occupational therapist, Miss Martinez. Doris Martinez, O.T.R., charted a campaign to increase the independence of Dorothy under the direction of Dorothy's physician. It was most important that Dorothy feel she could create things by working with her hands and arms.

Big steps come from small beginnings, and Doris suggested that Dorothy try leather lacing—beginning by making a simple key holder and progressing to a more difficult wallet. The creative and recreational activity led to the accomplishment of more serious tasks—learning how to use a knife and fork, being able to cook again, and finding out how to manage different work tasks under varying degrees of physical handicap as the long slow convalescence continued.

A variety of tasks faces the occupational therapist in her work. The therapist may help some patients explore new ways of making a living. Others must learn to do normal tasks with continuing handicaps and the occupational therapist helps them to learn how to compensate for them.

The occupational therapist first evaluates the patient's needs both physiological and psychological. She analyzes the role she will play in the treatment of these conditions. She employs a variety of tools (many of which she creates herself) from the worlds of art, music, crafts, industrial skills, writing, reading, recreation, homemaking, and vocational arts. Some functional tools may be directed employed such as the use of prostheses and adapted special equipment.

Occupational therapy is the use of purposeful activity as treatment in the rehabilitation of persons with physical or emotional disabilities. The objectives of the treatment program are determined by the occupational therapist according to the individual needs of each patient and may include:

- (1) decreasing or eliminating disabilities during initial phases of recovery following injury or disease
- (2) increasing or maintaining the individual's capabilities for independence and his physical, emotional and social well being
- (3) developing total function to a maximum level through early evaluation and experimentation for future job training and employment.



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To prepare yourself for this career you may begin at any of three levels. If you are in high school you will need one to three units of biology, chemistry or physics. Usually four units of English are required, with varying requirements in the fields of language, mathematics and history or social studies. You will want to obtain a school catalog from the school of occupational therapy you wish to attend so that you can check on detailed requirements prior to completing your high school education.

Students already in college can transfer to the occupational therapy course. To do so, you need to have accumulated a varying number of semester credits required by the different O.T. schools. General requirements include course credits in biologic and/or physical science, English, psychology and sociology. Some also require courses in art, education, drawing and design, speech and foreign language. You should have your transcript or a listing of college credits evaluated by the occupational therapy curriculum director of the school you wish to attend.

There are a number of approved occupational therapy courses offering college graduates an 18-22 month program leading to a certificate or diploma in occupational therapy. (College graduates may also enter the regular baccalaureate program in occupational therapy—usually on the Junior level.) Generally speaking, majors in biology, psychology and sociology have covered the pre-requisite biologic or physical science, psychology and sociology and specific subjects required. In addition, courses in three of the following may be required: drawing and design, music appreciation, speech and woodworking. Again, specific requirements should be checked with the school you wish to attend.

Employment opportunities for occupational therapists offer a wide variety of work environments. Hospitals, schools for the handicapped, TB sanitariums, mental health facilities, and Armed Forces medical facilities include these

specialists on their staff. As services for our senior citizens continue to expand, many more opportunities will open in nursing homes and continuing care facilities. Geriatric centers, fully developed home care services and rehabilitation centers are additional possibilities. The occupational therapist also figures prominently in services for the mentally ill.

Many more positions exist in this field than can be filled by qualified candidates. Salaries compare favorably with other fields requiring similar investments in education and skills.

To learn more about occupational therapy, visit with the occupational therapist in your community hospital. Visit the nearest school of occupational therapy and discuss your plans with the guidance member of the school's faculty. Discuss your interests and abilities with your school counselor and your parents. Inquire about the possibility of work as a volunteer which will aid you in obtaining a working knowledge of the field.

If you enjoy working with your hands, working with people, and being creative as you work with ideas and physical objects, occupational therapy may be the career for you.

SOURCES FOR INFORMATION

American Occupational Therapy Association 250 West 57th Street New York, N. Y. 10019

Careers in Occupational Therapy Health Careers Council of Illinois 400 North Michigan Avenue Chicago, Illinois 60611



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611





Optometry

D.O.T 079.108

conserving man's vision



Perhaps you are one of many Americans who naturally enjoys good vision. If so, you are probably not as acutely aware of its benefits as are many others who have discovered dramatic improvements in their ability to see through the services of optometrists.

Imagine the pleasure of giving care and relief to the eyes of the aged. Aiding adults to see better so they may carry out their adult responsibilities safely and more efficiently has its own rewards.



And, perhaps best of all, opening the eyes of children clearly and vividly to the wonders about them brings satisfaction that is hard to equal. Your optometrist finds these pleasures a part of his daily experiences.

An optometrist is a specialist in the art and science of vision care. His comprehensive education enables him to analyze visual functions at various working distances (especially at near and normal working distances) and to evaluate visual skills. He is skilled in detecting evidence of ocular and systemic disease apparent in the eyes.

He performs refractions to assess the extent of various visual deficiencies requiring correction. He detects neuro-muscular impairment or anomalies of binocular function and its correction.

For the particular needs of each patient the optometrist adapts conventional lenses, telescopic and microscopic devices and contact lenses. He provides orthoptics and visual training for correction and re-education of visual skills for improvement of visual performance.

Optometrists are concerned with vision care and should not be confused with others who provide medical eye care, such as ophthalmologists, oculists and eye, ear, nose and throat specialists. Nor should the work of optometrists be confused with the work of opticians, who grind lenses according to prescriptions for eyeglasses written by optometrists and physicians.

The development of optometry as a profession has taken place within the last sixty years. Its roots, however, are deep in recorded history. Pythagoras (560 B.C.) conducted experiments in the physical laws of optics, and Roger Bacon in 1276, described in detail the use of convex lenses "to make small letters appear large."

Before the advent of the optometrist, eyeglasses were fitted by a trial-and-error procedure. Lenses and light refraction were well understood by the middle of the 19th Century, and the demand for eyeglasses grew rapidly. In 1898, vision specialists organized into an association, adopt-

ing the name "American Optometric Association" in 1918. There are currently over 20,000 optometrists in the United States.

Personal qualifications of an optometrist include his keen interest in people. He enjoys being in close contact with them, and knows how to get them to communicate accurately to him. He possesses good manual dexterity, and is eager to apply his ability and interest in physical and natural sciences to the daily routine of professional practice.

To become optometrists, young men and women take a minimum of two academic years of college work after high school graduation. These pre-optometric studies include physics, mathematics, English, biological science, chemistry and psychology. A foreign language may also be included. In order to determine the exact requirements for pre-professional study, you should talk with your school counselor after obtaining a catalogue from the optometric school you plan to attend.

The successful completion of two years of pre-optometric study (with not less than a C average) makes you a candidate for admission to the four years of professional education. This education is given in one of ten accredited schools of optometry in the United States.

Graduation from optometry school will prepare you for the State Board examination in the state in which you intend to practice. The typical examination will cover ocular anatomy, ocular pathology, practical optometry, theoretical optometry, physical and geometrical optics, physiological optics, physiology, optometrical mechanics, and a clinical examination.

The rewards of being an optometrist are commensurate with the time and effort spent in acquiring the necessary education (and in maintaining it). Average life incomes of optometrists compare favorably with those of other health professions.

The intelligence, personality and training of the optometrist, his practice location and exactal business conditions

are factors of success in private practice. Meriting the confidence of your patients and having the ability to apply your knowledge of optometry are included as major ingredients in the successful practice of optometry.

The future of optometric practice is excellent, with the potential demand running well ahead of the most optimistic supply forecasts. Surveys show that beginning optometrists will find best economic and social rewards in cities with populations ranging from 5,000 to 50,000.

To learn more about a career in conserving man's vision, visit with your optometrist in your community. Watch his work as he makes a complete vision examination. Discuss your interests in optometry with your school counselor.

To determine further your interest in optometry there is a Kuder Preference Record Occupational Form, Optometrist—E, published by Science Research Associates, Inc. Your school counselor will aid you in securing this test.

After completing these investigations, your next step may be to discuss your interests and abilities with a counselor at the college of optometry you would like to attend. Then you will be ready to set your sights on a career with vision.

SOURCES FOR INFORMATION

American Optometric Association 7000 Chippewa St. Louis, Missouri 63119

Illinois Optometric Association 211 East Chicago Avenue Chicago, Illinois 60611



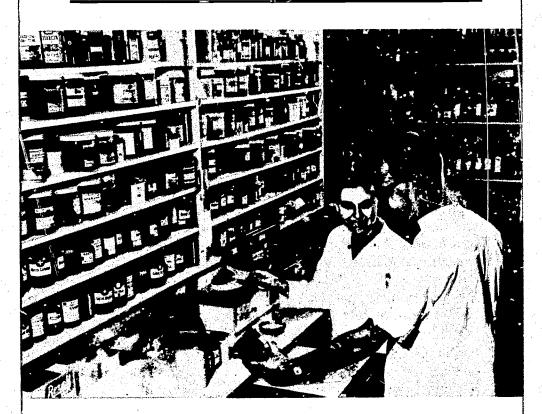
HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611



Pharmacy

the world of drugs and medicinals

D.O.T. 074.181



"Will" Marstead has been the pharmacist and owner of his neighborhood Pharmacy for many years. His education has continued since the day he graduated from the University.

"Each year we receive or the market between 300 and 700 new products", he explains. "Many of these are drugs and medications which the physicians in town expect me to know about. And I never know when my trips to the hospital will require that I obtain or prepare some new medication that falls well beyond the range of normal needs."



"Consequently, I make it a habit to spend several hours in study each week so that I know about the new drugs and medications. I find out about their physical characteristics, chemistry, derivatives and how to manufacture and preserve them so that the quality may be assured."

Of all the drugs prescribed today, more than one-half of them were unheard of prior to World War II. Consequently, the pharmacist faces a continuing challenge to keep abreast of current developments. The pharmacist is a repository of information about drugs and medications.

Pharmacy is an art and science concerned with medicinal products or pharmaceuticals. The profession is responsible for the preparation and availability of drugs. More than 100,000 of the 124,000 pharmacists now practicing in the United States are community pharmacists.

The community pharmacist buys and sells thousands of items used in health care. Most of these products today are factory made, but some of them are made by the pharmacist himself. On the basis of a prescription issued by a physician, dentist, podiatrist or veterinarian, the pharmacist may combine two or more substances to fill medication needs. The pharmacist also sells many ordinary home remedies and health supplies that are frequently requested by his patients. The prescription pharmacy differs from the community pharmacy in that the pharmacist restricts his business mainly to those items requested by prescription.

One of the most rapidly expanding areas open to pharmacists today is hospital pharmacy service. The hospital pharmacist works closely with the medical staff and with the hospital's administrator. He is a consultant on drug problems and compounds prescriptions, purchases hospital supplies, and serves as an instructor to the nurses, interns and other members of the hospital staff.

In industrial pharmacy, the pharmacist finds varied opportunities for careers in the discovery, development, manufacturing and quality control for new pharmaceutical products. Positions exist in administration, sales promotion, and as professional sales representatives.

Opportunities are also available in public health, the Food and Drug Administration, and the Veterans' Admin-

istration. Other positions are available in university teaching and research.

Certain personal qualifications are needed for a successful career in pharmacy. Cleanliness and orderliness should be a life-long habit. You must be meticulously careful in working out details. You should enjoy studying, not only during school, but in seeking out opportunities to strengthen your knowledge on your own time. Liking people and being able to relate them well are key factors in finding satisfaction in a career in pharmacy. Along with your aptitude for science, you will need to enjoy the details of keeping up with inventories, invoices, and orders for your retailing activities.

College proparatory should be your high school program. It should include English, mathematics, and sciences, preferably with some laboratory experience. Some schools require college entrance examinations and other aptitude tests.

To become a pharmacist, most colleges of pharmacy require a student to complete one or two years of pre-professional study prior to admission to the college of pharmacy. Basic courses such as English, mathematics, chemistry, physics, biology and general education are available in liberal arts colleges and universities. The minimum requirements, prior to entrance into the college of pharmacy, are 30 semester hours per year in specified and elective courses.

Several colleges of pharmacy accept students directly from high school, provided they have graduated from an accredited high school and have taken a college preparatory course. Some require completion of specific subjects in high school such as two years of mathematics, four years of English, one or two years of laboratory science and two or more years of history or government.

Students enrolled in colleges of pharmacy study under a five-year program of educatio, with one college requiring six years of study (including pre-professional study). Colleges operate under one of three plans:

I One year of pre-professional education preceding admission to the professional curriculum of four years.

II Two years of 1 re-professional education preceding admission to the professional curriculum of three years.

III An integrated curriculum with all five years in the professional college.

Courses in accredited colleges of pharmacy are similar, but not identical. You would study mathematics, physics, chemistry, pharmaceutical chemistry, and biology. Laboratory instruction and pharmacy practice are given prominent positions in your course of study. Other courses include pharmacognosy, pharmacology, business management, and pharmacy administration.

Twelve months of internship are spent during summer vacation periods and after graduation, to qualify for licensure as a registered pharmacist. Some specialties in pharmacy such as research and teaching require education beyond the bachelor's level. Many colleges of pharmacy offer graduate instruction leading to master's and doctorate degrees.

To find out more about a career in pharmacy, visit pharmacists in health facilities within your community. Raise questions with your community pharmacist to discover first-hand the various aspects of his work. Visit a nearby college of pharmacy and get acquainted with one or more students of pharmacy.

With the right personal qualifications and a good educational background, you can be a part of this career which is essential in making today's modern miracles in medication available to the nation.

SOURCES FOR INFORMATION

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American Pharmaceutical Association 2215 Constitution Avenue, N. W. Washington, D. C. 20037

Illinois Pharmaceutical Association 222 West Adams Street Chicago, Illinois 60606



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611





Physical Therapy

restoring human activity D.O.T. 079.378

Look into the physical therapy department of the hospital where Ella Jo Green works as one of the physical therapists and you will see skilled professional people engaged in a wide variety of tasks. At one moment she may be placing a merry kindergartner with cerebral palsy into a "crawler". They'll play a game she's invented to develop the child's defective leg coordination.

Nearby, Bart Rogers, the Chief Therapist, is helping Mrs. Conners learn how to walk again after a severe stroke. With his help, this grandmother has just taken her first step in eight months.



In a curtained booth, another physical therapist, Jim Darnell, adjusts control knobs and current on an electrical stimulating machine designed to keep muscles working artificially while injured nerves heal. He is treating teenager Marsha Thomas, who has a broken arm.

An hour ago he was testing the range of movement of a badly burned patient. At the same time, Bart had lowered a patient with arthritis into a Hubbard tank. Following his directions, the woman was able to move contracted muscles as the warm water relaxed her arthritic limbs and eased the pain.

The physical therapist treats (under directions from a physician) patients with disabilities resulting from disease, injury or loss of a bodily part, by the use of the therapeutic properties of exercise, light, heat, cold, water, electricity, ultrasonics and massage.

Through these means, the therapist provides relief from pain; helps the patient develop strength, mobility and coordination. He develops a continuing program of physical rehabilitation for the patient. In all of these activities, the physical therapist works with the physician and specialists in other fields—such as the occupational therapist and social worker—to assure a cooperative and comprehensive approach to the total well-being of the patient.

Historical sources of healing are important to the physical therapist in providing this treatment. Healing sources as old as nature itself are employed—sunlight (natural and artificial), warmth, electricity, water, and manual massage. Electric shock to treat headaches and similar afflictions is described as early as 50 A.D. in Roman writings. Worship of the sun's healing powers began with the early Egyptians. Baths were considered important for treating various conditions by the early Greeks and Romans, as was gymnastics and massage.

With the advent of World War II, physical therapy came into its own as a full-fledged health profession. Today, the demand for physical therapists is great and growing, as more hospitals in both urban and rural areas are built. Expanding programs within community health agencies, the increase of numbers of elderly and chronically ill persons, and growing needs for teachers and researchers in the field, all point to rapidly rising opportunities for the physical therapist.



Personal qualities are important in providing the unique services of physical therapists. You have to really like people, want to help and work with them. Physical strength is not a prime requisite, but stamina, good health, good coordination and manual dexterity are. To work successfully with other members of the health team, the therapist must have a fine spirit of cooperation. And because many treatments are long and arduous, he should display a wealth of patience and persistence.

The educational requirements for physical therapy begin with a good high school education. You should possess the credentials of a college preparatory course, with emphasis on science and English. Three kinds of educational programs are available:

1. The four-year degree program for high school graduates leads to a baccalaureate degree in physical therapy. College students who have started another course can transfer into a physical therapy program. In general, the degree program consists of two or three years of study to gain a broad educational background (Humanities, biological, physical and social sciences) and one or two years of professional education (basic health sciences, principles and practices of physical therapy, and supervised clinical experience).

2. A Certificate program is available to college graduates who meet specific requirements in biological, physical, and social sciences. This program offers twelve to sixteen months of education leading to a certificate of proficiency in physical therapy.

3. A two-year graduate program constitutes an alternative pathway for college graduates. This program leads to a master's degree in physical therapy.

Only graduates of approved programs are eligible to take licensure examinations, which are required in most states before you may practice.

Employment opportunities begin with community hospitals, where most physical therapists are employed. Government hospitals, city, state, and federal, also use the services of the physical therapist. Specific federal agencies employing physical therapists include the Veterans' Administration, the Armed Services, and the U.S. Public Health Service. Rehabilitation centers, nursing homes, mental health facilities, and crippled children's clinics are addi-

tional possibilities. Advancement opportunities with experience include the possibility of acting as a consultant to health care facilities, and doing research.

The rewards of a career in physical therapy are many. You will find that salaries compare very favorably with other professions requiring similar investments in education, knowledge and skills. What's more, graduate study leading to advanced degrees is available to permit more rapid advancement to supervisory positions, or to provide the necessary training for positions as consultants, teachers, and researchers. Pleasant surroundings, professional respect, membership on the health team, and the satisfactions of restoring human activity, are important rewards in themselves.

To learn more about physical therapy, you should talk with the physical therapists in your community before making a decision. Arrange for a tour through the community hospital, and its physical therapy department. Raise questions with the physical therapists about their work—its advantages and disadvantages. You will want to be alert for opportunities to continue your investigation of physical therapy through part-time employment and volunteer work. Discuss your interests and abilities with your school counselor and parents. You should then visit a school of physical therapy to examine more closely educational requirements.

SOURCES FOR INFORMATION

The American Physical Therapy Association 1790 Broadway New York, New York 10019

Careers in Physical Therapy Health Careers Council of Illinois 400 North Michigan Avenue Chicago, Illinois 60611



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611





Podiatry

D.O.T. 079.108

bright hope for foot health

"I had just finished removing the infected portion of Art Martin's ingrown toenail and had applied the protective dressing when my office assistant announced an emergency patient. I quickly instructed Art regarding proper shoes to prevent further damage to the toe, while my assistant prepared the patient for examination.



"Mrs. Marciandres was a young woman of twenty-two, who had suffered a foot injury in an auto accident. She was limping and her ankle was swollen. I took an x-ray to see whether she had a fracture. Fortunately, it was only a bad sprain. I placed a bandage called a strapping on her ankle for support." This is just a small sample of a podiatrist's work.

Podiatry is a specialty of medical practice that includes the diagnosis and/or the medical, surgical, mechanical, physical and adjunctive treatment of the diseases, injuries and defects of the human foot. Services you would perform as a podiatrist range from the simple treatment of skin conditions to treatment and surgery for more serious foot disorders such as weakfoot and flatfoot.

Treatment may involve the application of medicines or drugs. The podiatrist also utilizes his professional knowledge of mechanical devices such as strappings and paddings in treating structural defects. Physical therapy and surgery may also be used. Post-treatment can include the prescribing of inlays or supports for footwear.

Care of the feet began centuries before the Christian era. Greek writers refer to foot care and treatment as early as 372 B.C. Cleopatra employed specially trained servants to care for her hair, nails, face and feet. The term chiropody (from the Greek "cheir" meaning hand, and "pous" meaning foot) was first used in 1784, by an Englishman, David Low. Low's meaning for the word was "surgeon of the foot."

It was not until 1841, that a chiropodist in Pennsylvania, Julius Davidson, established the first permanent office for his practice. A group of chiropodists founded the Pedic Society of New York in 1895, leading to passage of the first chiropody practice act. In 1912, the National Association of Chiropodists was organized and the first school founded, the New York School of Chiropody.

In 1917, a newer word, podiatry, came into use which many foot doctors felt was more descriptive of their spe-



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cialty. The two words are now used synonymously, but since 1958, podiatry has been the official term.

To become a podiatrist requires a minimum of two years of pre-podiatry course work in an accredited college or university, followed by four years of study in one of five accredited colleges of podiatry. None of the podiatry colleges specify which subjects should be studied in high school. However, the subjects which will be most helpful include biology, chemistry, English and physics.

All of the pediatry colleges require a minimum of one year of chemistry, English, and biology or zoology during the two years of pre-professional college work. Three semester hours of physics or mathematics will also be required in most cases. You should check with the specific college of podiatry you wish to attend for other subject requirements.

The four years of study in podiatry college lead to the Doctor of Podiatric Medicine or Doctor of Podiatry degree. Each year consists of 33 to 36 weeks of classroom, laboratory and clinical study totaling between 4,100 and 5,100 hours of instruction. Subjects taken include anatomy, bacteriology, chemistry, physiology, pathology, surgical podiatry, foot orthopedics, foot gear, physical therapy and clinical practice. Medical subjects include preventive medicine, therapeutics, surgery, neurology, psychology, dermatology, orthopedic surgery, Roentgenology, diagnosis and podiatric medicine, history of medicine, and emergencies. Ethics, history of podiatry, jurisprudence, and professional economics are also taught.

After graduation most podiatrists go into general practice. 8,000 podiatrists see and treat nearly 20 million patients a year. Their average net income compares very favorably with the upper middle range of earnings for other health professions requiring a similar investment in education, skills and effort.

Other career opportunities in podiatry are available in the armed forces and government hospitals. Since the profession is relatively new, opportunities for its growth and development are excellent in view of our affluent and sophisticated society.

Would you fit as a podiatrist? You will need sufficient scholastic ability to master the academic and scientific subjects; mechanical ability to make and fit corrective and protective devices; and good, steady manual dexterity and skill to manipulate various mechanical, electrical and surgical instruments. A strong desire to become a podiatrist will play a prominent role in your scholastic success and later practice.

Equally important is a pleasing personality that exhibits pleasure at meeting and being with people, an ability to win their confidence and a desire to help them. Integrity, cleanliness, ambition, tact, punctuality, cheerfulness, neat appearance and patience are other qualities that podiatrists cite as being important to their success.

To find out more about podiatry visit with your community's podiatrist. Discuss your interests with him, observe his work, and raise questions with him that will help you relate yourself to his career. Talk with your school counselor about your interests and abilities. Obtain an appointment with a podiatry school counselor in order that you may observe first-hand podiatry education.

This career may well be your opportunity to pursue a specialty in medicine now bringing relief from foot disorders, illness and injury to 20 million patients each year.

SOURCES FOR INFORMATION

American Podiatry Association 3301 16th Street, N.W., Washington, D. C. 20010 Illinois Podiatry Society 18 South Michigan Avenue, Chicago, Illinois 60603



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611



Public Health

health protection for the community



The philosophy of public health is intertwined with that of all health care sources. To help people stay well and to get well are the two functions of the health professions. Public health concentrates on the stay well part—the prevention of illness and the promotion of good health practices.

In general, public health concerns all health care services which are directed toward the protection and promotion of the health of a community. For example, we sanitation of the environment including supervision of the food, water, and milk supplies of the community; the control of communicable diseases; the education of individuals in personal health; and the mobilization of medical and nursing services for the early diagnosis and treatment of disease are public health activities.

As a science, the field of public health advances with any progress of any of the health sciences. The most significant scientific health discoveries have occurred within the lifetime of some of our elder citizens. And nearly all public health organization and program advances have taken place within the same short time.

The goals for individual and public health are not absolute and unchanging. In some form they reflect the dominant values of the society. As times change and new problems and new solutions are discovered, the concepts of public health expand and adjust. This is vividly portrayed by the scope of public health activities today. As a result of careful studies of human populations and epidemics, many of the killing diseases of the early 1900's such as smallpox, typhoid and diabetes, have been brought under control. Now, public health is turning its attention to the conditions which are the causes of death and disability today—heart diseases, cancers, arthritis, and congenital conditions, for example.

The organization of public health services derives from the function of protecting and promoting the health of all the community's citizens. This function is assumed or assigned by public policy and involves political, economic, and social considerations. Not only is the community concerned with the health of its own members, but almost as much with the problems of other people's. To deal with the impact of transmissible disease on the community, to prevent its spread, to see that water, air, and food of good quality are available, to keep the physical environment clean and safe; for these and other purposes, public health organizations have been established.

The U.S. Public Health Service is the federal government organization which carries out that government's



assumed responsibilities for public health. One of its major resource units is the National Institutes of Health—the largest center of health research in the world. State health departments are the organization units which carry out state responsibilities that include the primary functions of planning, consulting, licensing and setting of standards.

The bulk of public health work is carried out at the local level by city, county, or district health departments, and allied organizations, such as voluntary health agencies, hospitals and other medical facilities, professional groups, and private foundations. It is here that most public health workers serve the community, either as individuals, workers or as teammates in health agencies.

The challenge facing public health workers today, is continuous, and, is tremendous. So long as men strive to live as long as possible, and to live as much of their lives as possible without illness (or with the least possible inconvenience from illness)—public health has virtually unlimited horizons.

Employment opportunities should be interpreted in light of the fact that it takes all kinds of people with all kinds of skills and competencies to do public health work. For most workers in the field today, public health represents a special aspect of their career choice. In fact, one could say that public health is comprised of personnel and skills borrowed from other fields with such personnel and skills especially applied in the service of the public health.

Manpower is the top priority in the public health field today and the demand will continue to outstrip the supply for years ahead. With the ever-growing increase of scientific knowledge in the health field, the gap is widening between what we know about retaining health and avoiding sickness and disease and what we apply in the way of public health services to people. We must have more trained personnel if we hope to close or even narrow this gap.

Here are some of the professional workers who can find careers available in public health work today on all levels—international, national, state, and local:

Sanitarians and Engineers Veterinarians Statisticiens





Public Health Nurses
Dentists
Physicians
Public Health Administrators
Social Workers
Health Educators
Laboratory Personnel (Bacteriologists, Virologists, Serologists, etc.)
Nutritionists
Therapists (Physical, Occupational, and Speech)
Behavioral Scientists (Sociologists, Social Psychologists, Anthropologists, etc.)

For more information about careers in the public health field, visit your nearest public health department. Discuss your interests, abilities and observations with your parents and your school counselor. A career in public health awaits you—in serving your community, state and nation.

SOURCES FOR INFORMATION

Chief of Information
Bureau of Medical Service
Public Health Service
U. S. Department of Health, Education and Welfare
Washington, D. C. 20025

Chief
Bureau of Health Education
Illinois Department of Public Health
505 State Office Building
Springfield, Illinois 62706



HEALTH CAREERS COUNCIL OF ILLINGS 400 North Michigan Avenue Chicago, Illinois 60611



Radiologic Technology

-D.O.T. 078.368

technicians of radiant energy



The radiologic technologist plays an important role in the ever expanding field of health services. Formerly referred to as x-ray technique, the field today encompasses all types of radiant energy and is called radiologic technology.

The technologist works with the guidance of a radiologist (a licensed doctor of medicine specializing in the use of x-ray and radioisotopes in the diagnosis and treatment of disease) or a roentgenologist (a licensed doctor of medicine specializing only in the use of x-ray in the diagnosis and treatment of disease).

Two specialty fields in radiologic technology have evolved; radiation therapy technology and nuclear medicine technology.

The x-ray technologist has a function of performing x-ray examinations on patients in various stages of health and disease. For example, chest x-ray examinations are frequent health examination requirements. X-ray examinations are needed on patients who have sustained an injury through an accident. Disease associated with the digestive system, the brain and the heart also are confirmed usually by means of an x-ray examination.

In small institutions and private offices the x-ray technologist is expected to assist in treating patients with x-ray (radiation therapy), as well as helping with clerical work involved in keeping records of x-ray examinations. In departments where there is no dark room technician, the technologist is responsible for developing films.

The radiation therapy technologist assists the radiologist in treatment of diseases by exposing affected areas of the patient's body to prescribed doses of x-ray or other forms of ionizing radiation. This new specialty requires that the technologist maintain proper operation of the controlling devices and equipment during treatment and be responsible for all treatment records.

The nuclear medicine technologist (radioisotope technologist) assists the physician in administering the required dose of radioisotopes, given to patients to diagnose and treat disease. The technologist uses specialized equipment that traces and measures radioactivity within patients. The technologist mathematically calculates tracings to aid the physician in making a diagnosis.

Educational preparation for this career requires high school graduation as a prerequisite. Experience has shown that high school mathematics and science courses (especially physics, biology and chemistry) are helpful in preparation. Since most schools have a limited enrollment, preference is usually given to applicants who have a good educational background.

The x-ray technologist receives two years of education in a school approved by the American Medical Association's Council on Medical Education and Hospitals. Nationally, there are more than 900 of these schools operated by medical schools and hespitals. Your education includes classroom study and clinical experience.

Courses are given in anatomy, physiology, radiation physics, radiographic techniques, chemistry of processing and darkroom technique. Courses also are offered in nursing procedures, radiation protection, department administration and equipment maintenance. A similar three-year program leading to an associate degree can be found in an increasing number of junior and community colleges.

As an alternative you may elect a four-year college course that offers a bachelor of science degree in radiologic technology. Advanced education can lead to supervisory, administrative, and teaching positions.

An additional year of study beyond the two-year x-ray technology course in an approved school is required to become a radioisotope technologist. Courses include radio-biology, radiologic mathematics, radiation physics, clinical laboratory procedures and uses of ionizing radiation. The student also learns operation of specialized radiation detecting devices and record keeping procedures.

An additional year of study beyond the two-year x-ray technology course also is required to become a radiation therapy technologist. The year is devoted to studies of nursing procedures, mathematics, radiation physics, radio-biology, radium therapy, shielding and protection, and record keeping.

Certification requires an examination in one of the three areas after completing your education, as given by the American Registry of Radiologic Technologists. Successful completion of the examination provides certification as a registered technologist in x-ray technology, nuclear medicine or radiation therapy—all abbreviated A.R.R.T.

Before applying you should investigate three aspects of the school of your choice. First, the educational program should be approved by the Council on Medical Education of the American Medical Association. A list of approved schools can be obtained from the American Society of Radiologic Technologists.



The second aspect to be considered pertains to the educational program which fits your expectations. The amount of time and money you wish to invest in specialized education to prepare for a career will influence your decision.

The third consideration should relate to the educational facilities provided by the school. Adequate supervision should be provided with regularly scheduled classes whether the program is a 24 month, junior college or baccalaureate program.

Where will you work? The majority of radiologic technologists work in hospitals. Others are employed in government, health industries, public health, mental health, education, doctors' and dentists' offices, and clinics. Salaries are comparable to those in other fields requiring at least the same length and degree of specialized education.

Employment opportunities in the years ahead will continue to exceed the supply as the expansion of hospitals and clinics continues. Our nuclear age and the medical frontiers' fight against dread diseases, such as cancer, will maintain the importance of this career.

SOURCES FOR INFORMATION

The American Society of Radiologic Technologists 537 South Main Street Fond du Lac, Wisconsin 54935

American College of Radiology 20 North Wacker Drive Chicago, Illinois 60606

Radiologic Technology Careers Health Careers Council of Illinois 400 North Michigan Avenue Chicago, Illinois 60611



HEALTH CAREERS OF ILLINOIS 400 North Michigan Ave. Chicago, Illinois 60611





Social Work

D.O.T. 195.198

meeting human and social needs



Bill, who celebrated his 24th birthday last week, is employed full time helping residents in a slum neighborhood learn their rights and responsibilities and to act together for better housing. His wife, Vivian, has just walked out of a third floor flat where she has been guiding a troubled mother and father to understand and help their child (victim of a serious accident) grow in self-reliance, maturity and emotional adjustment. She works for a community hospital.

Bill and Vivian have two friends from college; newly-weds who are directing Peace Corps volunteers in a South American village where they are living. They are helping the villagers establish a community health program. All four of these young people are social workers.

What is social work? Well, it is an art and science concerned with unmet or unsatisfied human and social needs. Its services are designed to benefit both the individuals they reach and society. Social work achieves it objectives by working with individuals, families, groups and communities.

Three principal methods are used by social workers to achieve their objectives.

- 1. Social casework is used to help individuals find solutions to social and emotional problems through a sustained relationship to the caseworker. In this process the individual has the opportunity to work through his problems and gain freedom to use his inherent capacity to change and develop.
- 2. The second principal social work method is social group work. Social group workers deal with groups and individuals within groups. They help individuals imcrease their capacity for living with themselves and with others through participation in a variety of groups.

The group worker uses his knowledge of the behavioral sciences and skills to guide the group itself toward desired goals and activities that will serve the needs of the individuals as well as benefit the group. They help the group learn to function in a democratic and effective manner in solving everyday problems of living, drawing on the special abilities and interests of each participant.

3. The third principal method used by social work is community organization which is directed toward the planning, provision and coordination of services to meet the health and welfare needs of all the community. The guiding philosophy of this social work is that citizens themselves can create those conditions which will foster health

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and well-being of their area. To this end the social worker helps identify social problems, seeks out relevant facts, establishes priority of need, and shapes strategy for community action.

To become a professional social worker you must first obtain a baccalaureate degree from an accredited college, as a prerequisite for admission to a graduate school of social work in which the master's degree is obtained. Your undergraduate college studies generally should constitute a well-rounded liberal arts program. Individual schools of social work vary in their specific requirements, but all of them recommend a good grounding in the social and biological sciences during the four preparatory college years.

Admission to a school of social work, after receiving your baccalaureate degree, is on a selective basis. Selected candidates possess both academic and personal qualifications needed to complete graduate study and to be successful in professional practice.

Personal qualifications include intellectual ability to succeed in graduate study, evidence of good physical and mental health, a genuine interest in people, and the ability to establish and maintain positive and helpful relationships with people.

The social worker with a baccalaureate degree finds many opportunities open because the demands for social work services are great. In-service agency training provides the necessary specialized knowledge and skill. These individuals are employed in agencies under the supervision of professional social workers.

A variety of settings are available in social work practice. In hospitals and other health care facilities, social workers work with other members of the health team, relatives and friends of patients, community organizations and services, and directly with patients in aiding their adjustments and recovery from mental and physical illness, injury and disease—and in their return to useful function as members of the community.

Social workers also practice in family and child welfare agencies, in courts as probation and parole officers, in schools, community centers, welfare councils, neighborhood organizations, youth serving agencies and as social work teachers and researchers. They work all over the world in health and welfare positions. Social workers advise and assist governments in setting up social welfare programs, work with the United Nations and are staff members of international voluntary organizations.

The employment outlook in social work is excellent. Earnings of social workers are rising rapidly, and social work career seekers can look forward to salaries that compare favorably with other health careers requiring similar investments in education, skills and effort.

To learn more about social work, raise questions and discuss your interests with a professional social worker. Discuss your interests and abilities with your school counselor and your parents. Visit community social agencies and offer your services as a volunteer in community welfare programs.

You may discover for yourself a role in keeping our society dynamic and vital as we solve individual and social problems standing in the way of progress and human satisfaction.

SOURCES FOR INFORMATION

National Commission for Social Work Careers 345 East 46th Street, New York, N. Y. 1001%

Careers in Social Work
Welfare Council of Metropolitan Chicago
123 West Madison Street
Chicago, Illinois 60602



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611







Veterinary Medicine

guardian of our hidden health

D.Q.T. 073.160

"Sure, I'm healthy. I eat the right foods, have a checkup from my physician regularly, see my dentist, and of course there's my optometrist, podiatrist and others that I see occasionally for particular kinds of health care." Of course you do, but have you ever thought of the veterinarian as a guardian of your "hidden" health. In this regard he's a major contributor to your health, too.

Today's veterinarian serves the hidden health needs of the nation in many ways. He's responsible for many diseases you won't get through animal disease prevention programs, sanitation measures, and animal immigration inspections. He frequently is the overseer in keeping our water pure and our air clean.

A chimpanzee in a space capsule soaring around outer space, a zebra in a zoo, and the dog next door are all in the medical province of the veterinarian. Even many medicines that we take have only been possible through the services and scientific advances of the veterinarian.

The history of veterinary medicine is as cla as the companionship between man and animal. However, since the founding of the first veterinary college in the United States in 1854, this highly diverse profession has grown until now 24,000 men and women are included in its membership.

Your personal qualifications will be one of the first things you will want to examine in your investigation of veterinary medicine as a possible career. Like a detective, you need excellent powers of observation, since animal patients can't tell you directly their complaints. You should possess good study habits and an active curiosity that enjoys the success of finding answers. You should enjoy being around and working with animals, and you should have a real desire to work for their comfort and health.

To these personal qualifications you will add your education. After high school graduation comes a minimum of two years in college of preveterinary study. Your courses will emphasize the natural sciences, but also will include attention to the liberal arts. The average preveterinary student spends three college years in preparation for the professional school.

Going to a veterinary college is not unlike attending a medical school, in terms of the kinds of courses. Basic courses in bacteriology, immunology, histology and others

are nearly identical for all fields of medicine. In advanced courses, instruction becomes more specifically oriented to animals.

Including clinical experience, you will spend over 5,000 class hours in subjects such as surgery, medicine, public health, preventive medicine, physiology, microbiology, parasitology, biochemistry, pharmacology, anatomy and pathology.

Practice settings vary with the interests of the veterinarian. In agriculture, as a large animal practitioner your responsibility is to control and eradicate diseases of livestock and poultry—insuring that meat and meat products and milk and milk products are wholesome and disease free. Proper nutrition and high health standards in agricultural animals are also important. Much of the responsibility for protecting the farmers' \$34 billion mational investment in livestock rests with veterinarians in agriculture.

Public health veterinarians seek the prevention of human illness from over 100 diseases that come from animal sources. To protect us from these diseases, veterinarians inspect meat and meat products consumed in the United States. Checking animals at U.S. ports of entry prevents the introduction of foreign animal disease. Veterinarians also play prominent roles in research and industry.

Over 8,000 veterinarians devote their time to caring for the nation's growing pet population. There are over 24 million dogs, 25 million cats, and 15 million birds in our nation's homes. A sick pet is a burden, a cause of unhappiness, and may be a hazard. By caring for our pets, the small animal practitioner guards the public health and contributes to our enjoyment of pets.

Is it all worth it? Well, veterinarians receive starting salaries which are competitive with other professions. Earnings after ten years in private practice are better than the average for all professions. And for those possessing the right personal qualities, there is the continuing enjoyment of a healing profession.

What's more, practice opportunities for young veterinarians are very good. New and expanding opportunities in small animal practice, research, industry and public health will probably outstrip the supply of graduates. A new veterinarian will find many experienced veterinarians eager for joint practice arrangements which are helpful in getting a good start in practice.

Find out more about this career by discussing your ambitions and abilities with a veterinarian in your community. Talk with your school counselor for an objective analysis of your interests and aptitude. And visit your nearest college of veterinary medicine.

If the opportunity arises, spend some time working with a veterinarian in his practice. Learn about the disadvantages of the field as well as its advantages. By observing veterinary medicine close up, you will be better prepared to make your decision.

SOURCES FOR INFORMATION

The Illinois State Veterinary Medical Association 1385 Whitcomb Avenue, Des Plaines Illinois 60018

The American Veterinary Medical Association 600 South Michigan Avenue, Chicago, Illinois 60606



Health Careers Council of Illinois 400 North Michigan Ave. Chicago, Illinois 60611



Other Careers in Health



The hospital administrator bears responsibility to the governing board for the operation of the entire hospital, assuring the trustees and the patients of the highest possible standards in service and economy. He possesses excellent management skills, and is responsible for implementing policies of the institution. A bachelor's degree is required for entry into a formal graduate program in hospital administration. In general, such college programs require two years of study for the master's degree.

For further information:

The Association of University Programs in Mospital Administration

Suite 229 1642 East 56th Street Chicago, Illinois 60637

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Speech Pathology and Audiology are concerned with problems and disorders of human communication as manifested in the processes of speech and hearing. Common terms for professional people in the field are speech correctionist and speech and hearing therapist. Problems and disorders in speech and hearing are analyzed and various kinds of therapy employed to correct defects. Increasing numbers of professional people in this field are being employed by hospitals and other health care facilities. Preprofessional education consists of a baccalaureate degree, followed usually by professional preparation at the master's degree level.

For further information:
American Speech and Hearing Association
9030 Old Georg town Road
Washington, D. C. 20014

Supportive nursing personnel constitute a large number of personnel in hospitals, nursing homes, and mental health and rehabilitation centers. A nursing aide works under the direction of a nurse in performing many tasks important to patient care, as does the orderly. A surgical technical aide (or operating room technician), under the direction of a registered nurse, works as a member of the surgical team in assisting in care and preparation of patients before, during, and after surgery, and in the maintenance and use of supplies and equipment. A psychiatric aide works in the psychiatric department of a general hospital or in a mental health hospital or center. Routine nursing care duties as well as limited therapy tasks are undertaken under supervision of a registered nurse. A ward clerk relieves nurses of much of the paper work and routine business tasks connected with the operation of the patient care unit. Training programs for these occupations are found in on-the-job settings, as well as in cooperative education programs with high schools and adult education programs with community colleges and public schools.

For further information: Contact your local hospital, nursing home, mental health center, or rehabilitation center.

The inhalation therapist is in charge of the technical details of oxygen administration, acting under a prescription by a physician. Other responsibilities include record keeping and maintenance of equipment and supplies. Approved schools require entrance standards of high school graduation or equivalency examination. The courses in-

clude nine months of classroom instruction and practical experience.

For further information:

American Association of Inhalation Therapists 332 South Michigan Avenue Chicago, Illinois 60604

Medical assistants serve the physician in three ways: performing secretarial and other office duties, assisting with patients, and maintaining the efficient operation and organization of the office routine. If the medical assistant is the physician's sole helper, she will have added responsibilities in recretarial, receptionist, bookkeeping and limited clinical duties.

Presently, the most common preparation for this field is on-the-job training, following four years of high school with emphasis on business and science courses. However, the trend is toward recommended courses in community colleges. Commercial schools also offer training.

It is most important, however, that young women interested in this field carefully evaluate the cost of training against its value in obtaining the occupational goal of a medical assistant. Cost of education, the existence of a placement service, and attractive educational facilities are no guarantee of job security. Better guides to your educational decision in this field can be found by discovering if the educational program offered includes a liberal amount of actual practice in a physician's office.

For further information: Contact your physician, and the County Medical Society. Determine if they would endorse the training you are contemplating, or if they would recommend that you secure your skills through onthe-job training in a physician's office. The American Association of Medical Assistants (510 North Dearborn St., Chicago, Phinois, 60610) can supply a list of accredited junior colleges which offer courses in medical assisting.

The electrocardiograph technician records a patient's heart action with an instrument using electrodes as monitors. The electroencephalograph technician records brain waves with an instrument that also uses electrodes for monitoring. A three-to-six month on-the-job training program in a hospital under the supervision of an experienced technician or medical specialist is the usual pathway to those occupations.

Hospital admitting office personnel include the hospital admitting officer. This person arranges patient admissions,

conducts patient interviews for needed information, assigns rooms, and prepares and maintains records of admission, transfer and discharge. He assists patients in making financial arrangements. The office staff, which he supervises, consists primarily of admitting clerks. They perform the clerical work and must be good typists. Contact the Personnel Director of your community hospital.

The business office of a hospital employs a business manager, hospital accountant, credit manager, bookkeeper and a number of secretarial and clerical personnel. Other positions in the hospital include those of public relations director, (and assistant), director of volunteers, purchasing agent, medical secretary, switchboard operator and receptionist.

The Dietary department employs cooks, dietary assistants, and assistant cooks among others.

Hospital engineering and maintenance requires a *chief* engineer or plant superintendent and several supporting workers to keep the physical plant smoothly operating.

Many other careers are found in the hospital. Hospital housekeeping is an important area of activity—in keeping the hospital clean, orderly and attractive. The executive housekeeper directs and administers this program, including the hiring and scheduling of the housekeeping employees who perform the work. General office personnel are frequently needed in this department as well. The laundry manager supervises laundry washing and finishing by the laundry workers. This department and housekeeping are most important in maintaining the hospital's high standards of cleanliness.

Positions similar to many cf those cited are available in nursing homes, clinics, and mental health centers.

For further information: Contact the personnel offices of health care facilities.

There are more than 200 job titles listed for the health field. We have presented only a few of them. Whatever your interests and abilities, there is a job which will suit them in the health industry.



HEALTH CAREERS COUNCIL OF ILLINOIS 400 North Michigan Avenue Chicago, Illinois 60611





Financial Assistance for Health Careers

No attempt can be made here to cover all of the possible financial assistance resources for health careers education. The resources are many and varied. Adequate health manpower is a problem now recognized as critical as the supply of physical scientists ten years ago. It can be expected that sources for financial assistance in health careers education will continue to grow at a rapid rate.

General national sources for financial assistance are frequently overlooked in a search for funds specifically provided for health careers. Yet, these national sources constitute an enormous reservoir of financial assistance. We will mention only a few.

The Veterans Readjustment Benefits Act of 1966 (Cold War GI Bill) provides educational opportunities for a potential of over five million qualified servicemen and women now in civilian life or on active duty in the armed forces. Any veteran who was honorably discharged and who has served continuously on active duty for at least 181 days ending after January 31, 1955, or whose service after that date was interrupted by a service-connected disability, is eligible for benefits. Persons still in service are eligible if they have had at least two years of active duty.

Benefits for full time schooling range from \$100 to \$150 per month based on the number of dependents, and are paid for a maximum of thirty-six months on the basis of one month of benefits for each month of active duty.

The Junior GI Bill (Title 38 U.S. Code, Chap. 35) provides educational opportunities for approximately 185,000 children of veterans who died or were permanently and totally disabled as a result of serving in the U.S. Armed Forces. Eligible are children of deceased veterans who served during the Spanish-American War, World War I, World War II, and the Korean War. Children of veterans who died or were permanently and totally disabled while in the Armed Forces during the following periods are also eligible: (a) September 16, 1940 to December 6, 1941, (b) January 1, 1947 to June 26, 1950, and (c) while selective service (draft) is in operation from the end of the Korean War (January 31, 1955).

Benefits provide a maximum of 36 months of education with full time school payments of \$130 per month. Less than half of the potentially eligible students have applied for and used these benefits since 1956. This year the number of potential students will grow by more than 250 per month. Approximately 27,000 eligible young people are currently of college age.

The extension of social security benefits to otherwise eligible children attending high school or college, after reaching age 18 and up to age 22, constitutes another major resource for financial assistance. It is estimated that 312,000 students will receive about \$285 million in benefit payments during the 1966-67 school year. In the same year 14,000 students living in Illinois will be eligible to receive these benefits.

Many other general, national sources of financial assistance exist, such as the National Merit Scholarship Program. Your school counselor and financial assistance advisor at the health careers school you wish to attend will be able to help you in seeking out these opportunities.

More specific national sources are also available. The Economic Opportunity Act of 1964 makes available part time employment under the College Work-Study Program for needy students during the academic year and full time employment during the summer months and vacation periods. Federal loans are available under the Health Professions Loan Fund and the National Defense Education Act.

The Manpower Development Training Act provides schooling and stipends for students enrolled in some health occupations training programs. For example, programs in Licensed Practical Nursing and Certified Laboratory Assistants have been set up under this Act. Federal Opportunity Grants offer a maximum of \$800 from Federal funds in cases of exceptional financial need. The Health Professions Scholarship Grant provides a maximum of \$2,500 per student to exceptionally needy (those who could not pursue full time studies without this financial assistance) students.

The Armed Forces and the U.S. Public Health Service have liberal financial assistance programs available in exchange for normal enlistments, which are delayed 12 to 24 months while your education is completed. Under certain conditions and for given schools, financial assistance may be provided for a longer period than 24 months.

National professional associations, voluntary health agencies and many national foundations, businesses and industries provide financial assistance for further education. You should not overlook company scholarships that may be available to you by virtue of your parents' places of employment.

State sources include scholarship and loan programs for which the state appropriates funds. State departments of education and school counselors maintain lists of these programs. State professional associations and state foundations, businesses and industries are also good sources. Voluntary health organizations, such as health improvement associations, heart and cancer associations, hospital auxiliary associations, and auxiliaries of the health professions, usually offer scholarship aid for health careers education as one of their major activities.

Local sources are many and varied. Your school counselor, health careers chairmen of the county medical society, dental society, hospital, pharmaceutical and other auxiliaries are the best sources for information.

Many local organizations provide scholarships and loams, although the exact list will vary with each community: men's service clubs such as Rotary, Kiwanis, and Lions; The American Legion; Forty and Eight; fraternal orders





such as Elks, Moose, Knights of Pythias, and Odd Fellows; labor unions; women's organizations including the federation of women's clubs, Business and Professional Women's Club, Daughters of the American Revolution, Altrusa, Zonta, Quota, and Pilot; Farm Bureau; county health improvement associations; community hospital auxiliaries; county health professional societies and auxiliaries; voluntary health organizations; health agencies; foundations and charitable trusts.

The best sources for information on financial assistance are schools for the health occupations and professions. Both specific and general sources of financial assistance are available through the school of your choice. Discuss your needs with the school's student financial advisor or student counselor.

Before applying you should be reasonably certain that you will meet the entrance requirements for education in the health career of your choice. Applying for financial assistance with a particular school usually means that you have at least received provisional acceptance for enrollment.

Exploring sources for financial assistance should begin very early. Juniors in high school can profit from thoroughly surveying sources in order they may carefully complete applications as early as feasible in their senior year. Students already enrolled in education programs for health careers, who need financial assistance, should also thoroughly survey possible sources before selecting those which fit their financial needs.

Knowing when and how to apply is as important as identifying the sources of financial assistance. Application forms should be completely and accurately filled out. Names and addresses of places where the applications are to be sent should be carefully checked.

Your general application letter should be as brief as possible, but should state fully and unequivocally your needs, your career goals, and your present resources for partially financing your education. Your school counselor, school advisor, bank officer, or members of the health professions will be happy to assist you.

Timing is important. Know when the organization to which you are applying wishes to receive applications, and get your application in early during that period. Investigate opportunities for part time employment early, and don't forget that some schools pay stipends for work done while you are developing practical skills (such as the stipends for many students of radiologic technology and dietetic interns).

With today's economy and today's resources, there are many sources of financial assistance in health careers education. Discovering them is like prospecting for gold over a rich vein—it's there, but you have to dig it out. The list of publications below suggest some additional sources of information on financial assistance.

Publications Listing Sources of Financial Assistance

- Government Publications (Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 26402)
- Borrowing for College, Guide for Students and Parents. 1965. OE-55039. 20¢ per copy.
- Financial Aid for College Students: Graduate. Office of Education Bulletin 1957, No. 17, 50¢ per copy.
- Financial Aids for Undergraduate Students: OE-55029, U.S. Dept. of Health, Education and Welfare.
- Financial Assistance for College Students: Undergraduate and First Professional. Richard C. McKee. 1965. OE-55027-64. 50¢ per copy.
- Financial Assistance for College Students: Undergraduate. Bulletin 1962, No. 11, OE-55027, U.S. Dept. of Health, Education and Welfare, \$1.25 per copy.
- Get Ready for College and Go, Your Guide to Four Programs of Federal Assistance in Financing College Education. 1965. OE-50046.



Information on Science Scholarships and Student Loans. NSF 60-33, National Science Foundation, 15¢ per copy.

Scholarships and Fellowships: A Selected Bibliography. Office of Education Bulletin 1957, No. 7, 15¢ per copy.

Student Assistance Handbook. 1964. 50¢ per copy.

General Publications

The Foundation Directory, ed. by Walton and Andrews, Russell Sage Foundation, 505 Park Avenue, New York 22, N. Y. \$10.00 per copy.

How About College Financing? American Personnel and Guidance Association, 1605 New Hampshire Avenue, N.W., Washington, D. C. 30¢ per copy.

Nesd a Lift? The American Legion, Department S, P.O. Box 1055, Indianapolis, Indiana 46206. 25¢ per copy.

Scholarships, Fellowships and Loans, Vol IV, by S. Norman Feingold. Bellman Publishing Company, Cambridge 38, Mass. \$10.00 per copy.

Specific Publications

Dentistry (available from the American Dental Association, 222 East Superior Street, Chicago, Illinois 60611)

Dental Student Loan and Scholarship Programs.

Dietetics (available from the American Dietetic Association, 620 North Michigan Avenue, Chicago, Illinois 60611)

Awards, Scholarships, and Loans.

Medical Record Library Science (available from the American Association of Medical Record Librarians, 840 North Lake Shore Drive, Chicago, Illinois 60611)

Information for Applicants: Foundation of Record Education of AAMRL (Grace Whiting Myers-Malcolm T. MaeEachern Student Loan Fund)



Medical Technology (available from the American Society of Medical Technologists, Saite 25, Hermann Professional Building, Houston, Texas 77025)

Award-O-Gram.

Medicine

Available from the American Medical Association, 535 North Bearborn Street, Chicago, Illinois 60611:

Medical Education Loan Guarantee Program.

Medical Scholarship and Loan Fund Programs.

Maybe He Can Become A Doctor.

Available from the American Association of Medical Colleges, 2530 Ridge Avenue, Evanston, Illinois 60201:

Financing A Medical Education.

Available from the Illinois State Medical Society, 360 North Michigan Avenue, Chicago, Illinois 60601:

ISMS—IAA Student Loan Fund.

Nursing

Available from the Committee on Careers, National League for Nursing, 10 Columbus Circle, New York, New York, 10019:

Scholarships and Loans for Professional and Practical Nursing.

Available from the Illinois League for Nursing, 6355 North Broadway Avenue, Chicago, Illinois 63676:

Fact Sheet-Nursing Scholarship Program.

Available from the Chicago Council on Community Nursing, 8 South Michigan Avenue, Chicago, Illinois 60603:

Fact Sheet on the Scholarship Program.

Occupational Therapy (available from the American Occupational Therapy Association, 250 W. 57th Street, New York, New York 10019)

Where to Look for Financial Help.

Optometry (available from the American Optometric Association, Inc., 7000 Chippewa Street, St. Louis, Missouri 63119)

Scholarships in Optometry.

Pharmacy (available from the National Advisory Commission on Careers in Pharmacy, 2215 Constitution Avenue, N.W. Washington, D. C. 20037)

Sources of Financial Aid for Pharmacy Students.

Physical Therapy (available from the American Physical Therapy Association, 1790 Broadway, New York, New York 10019)

Sources of Financial Assistance for Physical Therapy Students.

Poriatry (available from the American Podiatry Association, 3301 16th Street, N.W., Washington, D. C. 20010)

Scholarship Fund.

Fellowship Fund.

Social Work (available from the National Commission for Social Work Careers, 342 East 46th Street, New York, New York 10017)

Financing Your Education for a Social Work Career. Social Work Fellowships and Scholorships. \$1.50 per copy.





Approved Schools for Health Careers

INTRODUCTION

The following schools are listed, recommended or approved by the professional association or associations in each discipline, and (when appropriate) by an accrediting agency under the sponsorship of organized medicine or dentistry.

COLLEGES OF DENTISTRY

ILLINOIS

School of Dentistry Loyola University of Chicago 1757 West Harrison Street Chicago 60612

Northwestern University Dental School 311 East Chicago Avenue Chicago 60611

College of Dentistry University of Illinois 808 South Wood Street Chicago 60612

INDIANA

School of Dentistry Indiana University 1121 West Michigan Street Indianapolis 46202

IOWA

College of Dentistry State University of Iowa Dental Building Iowa City 52240

KENTUCKY

College of Dentistry University of Kentucky Medical Center Lexington 40506

School of Dentistry University of Louisville 129 East Broadway Louisville 40202

MISSOURI

School of Dentistry St. Louis University 3556 Caroline Street St. Louis 63104

School of Dentistry Washington University 4559 Scott Avenue St. Louis 63110

WISCONSIN

School of Dentistry Marquette University 604 North Sixteenth Street Milwaukee 53233



ACCREDITED EENTAL HYGIENE PROGRAMS

ILLINOIS

Dental Hygiene Program, The Dental School

Northwestern University 311 East Chicago Avenue Chicago 60611

Dental Hygiene Program

Vocational Technical Institute Southern Illinois University Carbondale 62903

INDIANA

Curriculum for Dental Hygieni. 38

School of Dentistry Indiana University 1121 West Michigan Street Indianapolis 46202

Curriculum for Dental Hygienists

School of Dentistry Indiana University Ft. Wayne 46805

IOWA

Dental Hygiene Program

College of Dentistry State University of Iowa Iowa City 52240

KENTUCKY

Curriculum in Dental Hygiene

School of Dentistry University of Louisville 129 East Broadway Louisville 40202

WISCONSIN

Department of Dental Lygiene

School of Dentistry
Marquette University
604 North Sixteenth Street
Milwaukee 53233

ACCREDITED DENTAL LABORATORY TECHNOLOGY PROGRAMS

ILLINOIS

Vocational Technical Institute Southern Illinois University Carbondale 62903





ACCREDITED DENTAL ASSISTANT PROGRAMS (Fully Approved)

ILLINOIS

Morton Junior College 2423 South Austin Boulevard Cicero 60650

One-Year Programs

ILLINOIS

University of Illinois
Dental Assistant Program
808 South Wood Street
Chicago 60612 School of Dentistry Loyola University of Chicago 1757 West Harrison Street Chicago 60612 Bloom Township Community
College Tenth Street & Dixie Highway Chicago Heights 60411

KENTUCKY

Jefferson County Vocational School P.O. Box H Valley Station 40172

WISCONSIN

School of Dental Assistants
Madison Vocational, Technical
and Adult Schools
211 North Carroll Street
Madison 53703



DIETETICS Hospital Dietetic Internships

ILLINOIS

Cook County Hospital 1825 West Harrison Street Chicago 60612 University of Chicago Hospitals and Clinics 950 East 59th Street Chicago 60637

Veterans Administration Hospital Hines 60141

Colleges From Which Recent Interns Have Graduated

ILLINOIS

Illinois Wesleyan University Bloomington, Illinois

Millikin University Decatur, Illinois

Mundelein College Chicago, Illinois

Rosary College River Forest, Illinois Southern Illinois University Carbondale, Illinois

University of Illinois Urbana, Illinois

Northern Illinois University DeKalb, Illinois

Barat College of the Sacred Heart

Lake Forest, Illinois



COLLEGES OF MEDICINE

ILLINOIS

Northwestern University Medical School 303 East Chicago Avenue Chicago 60611

Stritch School of Medicine Loyola University 706 South Wolcott Avenue Chicago 60612

Chicago Medical School 710 South Wolcott Avenue Chicago 66512

University of Chicago School of Medicine 950 East 59th Street Chicago 60637

University of Illinois College of Medicine 1853 West Polk Street Chicago 60612



SCHOOLS OF MEDICAL TECHNOLOGY

ILLINOIS

Rockford Memorial Hospital 2400 North Rockton Avenue Rockford 61101

St. Anthony's Hospital 6666 East State Street Rockford 61108

Swedish-American Hospital 1316 Charles Street Rockford 61101

St. Anthony's Hospital 767 30th Street Rock Island 61202 (program combined with that of Moline Public Hospital) Memorial Hospital of Springfield First and Miller Streets Springfield 62701

St. John's Hospital 701 East Mason Street Springfield 62701

Carle Memorial Hospital 602 West University Avenue Urbana 61801

St. Therese Hospital 1929 West Washington Street Waukegan 60085

MEDICAL RECORD LIBRARY SCIENCE PROGRAMS

	University or College	Entrance Prerequi- sites	Length of Program	Degree Offered
ILLINOIS				
Chicago, Grant Hospital		2 yrs. College	12 mo.	No
Chicago, Univ. of Illinois College of Medicine	University of Illinois	3 yrs. College	12 mo.	Yes
Danville, St. Elizabeth Hosp (female students only)	•	2 yrs. College	12 mo.	No
INDIANA				
Indianapolis, Indiana University School of Medicine	Indiana University	High School	4 yrs.	Yes
MISSOURI				
St. Louis, Homer G. Phillips Hospital		2 yrs. College	12 mo.	No
St. Louis University	St. Louis University	High School	4 yrs.	Yes
WISCONSIN				
La Crosse, St. Francis Hospital	Viterbo College	3 yrs. College	12 mo.	Yes

CERTIFIED LABORATORY ASSISTANTS PROGRAMS

ILLINOIS

Alton Memorial Hospital Alton 62002

St. Elizabeth Hospital 1431 North Claremont Avenue Chicago 60622

Swedish Covenant Hospital 5145 North California Avenue Chicago 60625 (women only)

Veterans Administration West Side Hospital 820 South Damen Avenue Chicago 60512

Sherman Hospital 934 Center Street Elgin 60120

Little Company of Mary Hospital 2800 West 95th Street Evergreen Park 60642

Oak Park Hospital 525 Wisconsin Avenue Oak Park 60304

Swedish-American Hospital 1316 Charles Street Rockford 61101

INDIANA

Clinic Hospital 309 South Main Street Bluffton 46714

Thorton-Haymond-Costin Medical Laboratory 301 East 38th Street Indianapolis 46205

St. Anthony Hospital South Wabash Street Michigan City 46360 Terre Haute School of Leboratory Assistants 1505 North 7th Street Terre Haute 47807

IOWA

Div. of Medical Laboratory Assistants

Davenport Area Technical School 909 East River Drive Davenport 52803

KENTUCKY

King's Daughters' Hospital 2201 Lexington Ashland 41101

Harlan Appalachian Regional Hospital Harlan 42153

Central Baptist Hospital 1740 South Limestone Lexington 40503

MISSOURI

Clinical Laboratories 100 North Euclid St. Louis 63108

WISCONSIN

Milwaukee County General Hospital 8700 West Wisconsin Avenue Milwaukee 53226

Sheboygan Memorial Hospital 2629 North Seventh Street Sheboygan 53081

Waupun Memorial Hospital Waupun 53963

St. Joseph's Community Hospital 550 Ridge Road West Bend 53095



SCHOOLS OF OCCUPATIONAL THERAPY

ILLINOIS

College of Medicine School of Associated Medical Sciences University of Illinois Chicago 60612

INDIANA

School of Medicine
Indiana University
Indiana University Medical
Center
Indianapolis 46207

IOWA

College of Medicine University of Iowa Iowa City 52240

MISSOURI

School of Medicine Washington University St. Louis 63110

WISCONSIN

School of Occupational Therapy University of Wisconsin Madison 53708

COLLEGES OF OPTOMETRY

ILLINOIS

Illinois College of Optometry 3241 South Michigan Avenue Chicago 60616

INDIANA

Division of Optometry Indiana University Health Center Building Bloomington 47405

COLLEGE OF PHARMACY

ILLINOIS

College of Pharmacy University of Illinois 833 South Wood Street Chicago 60612



SCHOOLS OF PHYSICAL THERAPY

KEY

- 1. Bachelors Degree Course
- 2. Certificate Course
- 3. Course may lead to Masters Degree

4. Bachelors Degree available from affiliating college or university

ILLINOIS

Northwestern University
(1, 2, 4)
Course in Physical Therapy,
Medical School
303 East Chicago Avenue
Chicago 60611

INDIANA

Indiana University (1)
Physical Therapy Program
School of Medicine
Indianapolis 46207

fowa

University of Iowa (2, 3) Physical Therapy Children's Hospital Iowa City 52240

MISSOURI

St. Louis University (1)
Dept. of Physical Therapy
1325 South Grand Boulevard
St. Louis 63104

University of Missouri (1) Curriculum in Physical Therapy Medical Center Columbia 65202

Washington University (1)
Department of Physical
Therapy
School of Medicine
660 South Euclid
St. Louis 63110

WISCONSIN

Marquette University (1)
Curriculum in Physical Therapy
School of Medicine
561 North 15th Street
Milwaukee 53233

University of Wisconsin (1) Course in Physical Therapy 1308 West Dayton Street Madison 53706

COLLEGE OF PODIATRY

ILLINOIS

Illinois College of Podiatry 1327 North Clark Street Chicago 60610



SCHOOLS OF NURSING

ILLINOIS		
KEY		
+	Programs accredited by the National Nursing.	League for
AD	Associate degree program.	•
De	Baccalaureate degree program.	
Di	Diploma program.	
M	Schools which admit men students. S sively for men are identified under name.	r the school
W	Schools which admit married student	5.
school or seco	uirements: State law specifies graduation indary school approved by the Department of an equivalential by an examination conducted leartment.	nent of Key- ent course of
Alton	Alton Memorial Hosp. S. of N. St. Joseph's Hosp. S. of N.	Di-M-W +Di-W
Aurora	Copley Memorial Hosp. S. of N.	+Di-M-W
Belleville	Belleville Jr. College, Dept. of N.	AD-M-W
Bloomington	Brokaw Collegiate S. of N. of the Illi Wesleyan Univ. Mennonite Hosp. S. of N.	inois + De-M-W Di-M
Canton	Graham Hosp. S. of N.	Di-M-W
Champaign Champaign	Burnham City Hosp. S. of N.	Di
Chicago	Alexian Brothers Hosp. S. of N. (For men students)	+Di-M
	Amundsen-Mayfair Jr. College,	AT 34 617
	Dept. of N.	AD-M-W +-Di
	Augustana Hosp. S. of N. Chicago Wesley Memorial Hosp. S. o	
	Columbus Hosp. S. of N.	Di-M-W
	Cook County S. of N.	+Di-M-W
	De Paul Univ., Dept. of N. Hosp. of St. Anthony de Padua S. of	De-M-W F N. Di
	Ellinois Masonic Hosp. S. of N.	+Di-M
	James Ward Thorne S. of N.	-+ Di-7V
	Passavant Memorial Hosp. Loyola Univ. S. of N.	+De-M-W
	Michael Reese Hosp. and Medical C	enter
	S. of N.	+Di-W
	Mt. Sinai Hosp. Medical Center S. o	f N. +Di-M

Chicago (Cont'd) De-M-W North Park College Dept. of N. Presbyterian-St. Luke's S. of N. Ravenswood Hosp. S. of N. Roseland Community Hosp. S. of N. +Di-M-W +Di-W Di St. Anne's Hosp. S. of N. St. Bernard's Hosp. S. of N. St. Elizabeth's Hosp. S. of N. + Di-W Di-M-W +Di St. Mary of Nazareth Hosp. S. of N. Saint Xavier College S. of N. +Di-M-W +De-W +Di-M South Chicago Community Hosp. S. of N. Swedish Covenant S. of N. +Di --- De-M-W Univ. of Illinois, College of N. +Di-W Walther Memorial Hosp. S. of N. Bloom Community College Dept. of N. AD-M-W Chicago Hts. J. Sterling Morton Jr. College Dept. Cicero AD-M-W of N. Lake View Memorial Hosp. S. of N. Di-M-W Danville St. Elizabeth Hosp. S. of N. Di-M-W Decatur and Macon County Hosp. Decatur S. of N. +Di-M-W +De-M-W Northern Illinois Univ. S. of N. De Kalb Katherine Show Bethea S. of N., Dixon Di-M-W Dixon Public Hosp. East St. Louis Southern Illinois Univ. Dept. of N. De-M-W AD-M-W Elgin Community College, Dept. of N. +Di-W Evanston Hosp., S. of N. Evanston St. Francis Hosp. S. of N. +Di-M-W Evergreen Park Little Company of Mary Hosp. +Di-M-W S. of N. Di-M Freeport Memorial Hosp. S. of N. Freeport +Di-M-W Galesburg Cottage Hosp. S. of N. Galesburg Thornton Jr. College, Dept. of N. AD-M-W Harvey Hinsdale Hosp. S. of N. +Di-M-W Hinsdale Passavant Memorial Area Hosp. S. of N. +Di-W **Jacksonville** St. Joseph Hosp. S. of N. +Di Joliet +Di-M-W Silver Cross Hosp. S. of N. Lutheran Hosp. S. of N. Moline Public Hosp. S. of N. +Di Moline +Di

Triton College Dept. of N.

AD-M-W

Northlake

Oak Lawn	Evangelical Hosp. S. of N.	Di
Oak Park	Oak Park Hosp. S. of N. West Suburban Hosp. S. of N.	+Di-M-W +Di
Park Ridge	Lutheran General and Deaconess Hosp. S. of N.	Di-M-W
Peoria	Methodist Hosp. of Central Illinois S. of N. St. Francis Hosp. S. of N.	+Di-M-W +Di-M-W
Quincy	Blessing Hosp. S. of N.	+Di-M-W
Rockford	Rockford Memorial S. of N. St. Anthony Hosp. S. of N. Swedish-American Hosp. S. of N.	+Di-M-W Di-M-W Di-M
Rock Island	St. Anthony's Hosp. S. of N.	+Di
Springfield	Memorial Hosp. of Springfield S. of N. St. John's Hosp. S. of N.	+Di-M-W +Di-M-W
Urbana	Mercy Hosp. S. of N.	$+\mathbf{Di-W}$
Waukegan	St. Therese Hosp. S. of N.	+Di-M-W

LICENSED PRACTICAL NURSING PROGRAMS

ILLINOIS

KEY

Letters in the righthand margin following the name of a school indicate certain admission policies:

HSE	High scho	ol extended	(program	is begun	as part
	of high s	chool cours	e and conc	luded afte	er gradu-

ation from high school).

M Schools which admit men students.
W Schools which admit married students.

Academic Requirements: State law specifies completion of two years of high school or equivalent, or completion of eighth grade if over 25 years of age before July 1951.

Alton	F.	w.	Olim	Voc.	School,	Alton	PN	Prog.	M.W

Aurora McAuley Mercy School of PN, St. Joseph Mercy Hosp. M-W

Bleomington School of PN M-W





Carbondale	Southern Illinois Univ. VocTech.	
Carbondane	Institute School of PN	M-W
Champaign	Champaign School of PN	M-W
Chicago	Chicago PN Training Prog., Manpower Division Chicago Public Schools PN Center Chicago Public Schools PN Center St. Francis X. Cabrini School of PN	M-W M-W HSE-M W
Danville	Danville Jr. College School of PN	M-W
Decatur	Decatur School of PN	M-W
Dixon	Dixon State School of PN	M-W
East St. Louis	East St. Louis Bd. of Ed., Dist 189 School of PN	M-W
Galesburg	Galesburg Public School PN Prog.	M-W
Harrisburg	Southeastern Illinois College School of PN	M-W
Hinsdale	Hinsdale Hosp. and Sanitarium School of PN	W
Jacksonville	Jacksonville School of PN, Board of Ed. District 117	M-W
Joliet	Joliet Township HS Prog. in Nursing	M-W
Kankakee	Kankakee School PN Prog.	M-W
La Salle	St. Mary's Hosp. School of PN	W
Mattoon	Mattoon School of PN	M-W
Maywood	Proviso Township School of PN	M-W
Mt. Carmel	Wabash Valley College School of PN	M-W
Mt. Vernon	Mt. Vernon School of PN	M-W
Oak Forest	Oak Forest Hosp. School of PN	M-W
Peoria	Peoria School of PN	M-W
Quincy	Quincy School of PN	M-W
Rock Island	Rock Island County School of PN	W
Rockford	Rockford School of PN	M-W
Skokie	Niles Township HS PN Prog.	M-W
Springfield	Springfield School of PN	M-W
Sterling	Sterling Township HS PN Prog.	M-W
Waukegan	Waukegan Township HS PN Prog.	M-W

SCHOOLS OF X-RAY TECHNOLOGY

* Female Students Only

Name and Location	Enfrance Requirements	Training in Months
ILLINOIS		
Arlington Heights Northwest Community Hospital	High School	24
Aurora		
Copley Memorial Hospital*	High School	24
St. Charles Hospital*	High School	24
St. Joseph Mercy Hospital*	High School	24
Blue Island		
St. Francis Hospital	High School	24
Champaign		
Burnham City Hospital	High School	24
Chicago		2.4
Chicago Wesley Memorial Hospital	High School	24
Cook County Graduate School of	Trick Cohool	24
Medicine	High School High School	24 24
Edgewater Mospital	High School	24 24
Englewood Hospital	High School	24 24
Evangelical Hospital	Migh School	24
Franklin Boulevard Community Hospital*	High School	24
Grant Hospital	High School	24
Illinois Masonic Hospital	High School	24
Louis A. Weiss Memorial Hospital	High School	24
Lutheran Deaconess Hospital	High School	24
Mary Thompson Hospital (Crane	IIIgii Doileoi	2-7
Jr. College)	High School	24
Michael Reese Hospital	High School	24
Mount Sinai Hospital	High School	24
Norwegian-American Hospital	High School	24
Presbyterian-St. Luke's Hospital	High School	24
Provident Hospital	High School	24
Ravenswood Hospital*	High School	24
Roseland Community Hospital	High School	24





Name and Location	Entrance Requirements	Length of Training in Months
Chicago (Cont'd)		
St. Anne's Hospital*	High School	24
St. Bernard's Hospital	High School	24
St. Elizabeth's Hospital	High School	24
St. Joseph Hospital	High School	24
St. Mary of Nazareth Hospital (Crane Jr. College)	High School	24
South Chicago Community	High School	24
Hospital	High School	24
Woodlawn Hospital	righ School	24
Danville Lake View Memorial Hospital (Danville Jr. College)	High School	24
Decatum		
Decatur and Macon County Hospital (Millikin University)	High School	24
Dixon Dixon Public Hospital	High School or R.N.	24
East St. Louis Centreville Township Hospital	High School	24
Elnawurst Memorial Hospital of DuPage County	High School	24
Evanston St. Françis Hospital*	High School	24
Evergreen Park Little Company of Mary Hospital	High School	24
Harvey Ingalls Memorial Hospital	High School	24
Hinsdale Hinsdale Sanitarium and Hospital	High School	24
Joliet Silver Cross Hospital	High School	24
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Name and Location	Entrance Requirements	Length of Training in Months
Kankakee		
St. Mary's Hospital	High School	24
Kewanee Public Hospital	High School	24
Moline	waren periodi	
Moline Public Hospital (Blackhawk Jr. College)	High School	24
Oak Park		
West Suburban Hospital	High School	24
Park Ridge Lutheran General Hospital	High School	24
Peoria		
Methodist Hospital of Central		
Illinois	High School	24
St. Francis Hospital	High School	24
Quincy	77' 1 0 1 1	
Blessing Hospital St. Mary Hospital	High School High School	24
Rockford	righ School	24
Rockford-Memorial Hospital	High School	24
St. Anthony Hospital	High School	24
Swedish-American Hospital	High School	24
Rock Island	8 0011001	~
St. Anthony's Hospital	High School	24
Skokie	511 0011001	2.
Skokie Valley Community Hospital	High School	24
Springfield		
Memorial Hospital	High School	24
St. John's Hospital (Springfield Jr.		
College)	High School	26
Urbana Carla Mamarial Hamital	TT: 1 0 1 1	
Carle Memorial Hospital Mercy Hospital	High School	24
wicio, Hospital	High School	24

SCHOOLS OF X-RAY TECHNOLOGY (Bachelor of Science Degree)

University of Missouri Medical Center School of Medicine Columbia, Missouri 65201 School of Nursing and Health Services St. Louis University 1402 South Grand Avenue Ct. Louis, Missouri 63104

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SCHOOLS OF SOCIAL WORK

ILLINOIS

University of Chicago School of Social Service Administration Chicago 60637

University of Illinois
The Jane Addams Graduate
School of Social Work
Urbana 61801

Chicago Branch 833 South Wood Street Chicago 60612

Loyola University School of Social Work 820 North Michigan Avenue Chicago 60611

INDIANA

Indiana University
Division of Social Service
122 East Michigan Street
Indianapolis 46204

AWGI

State University of Iowa School of Social Work Iowa City 52240

WISCONSIN

University of Wisconsin School of Social Work Madison 53706

Milwaukee Branch School of Social Work Milwaukee 53211

COLLEGES OF VETERINARY MEDICINE

ILLINOIS

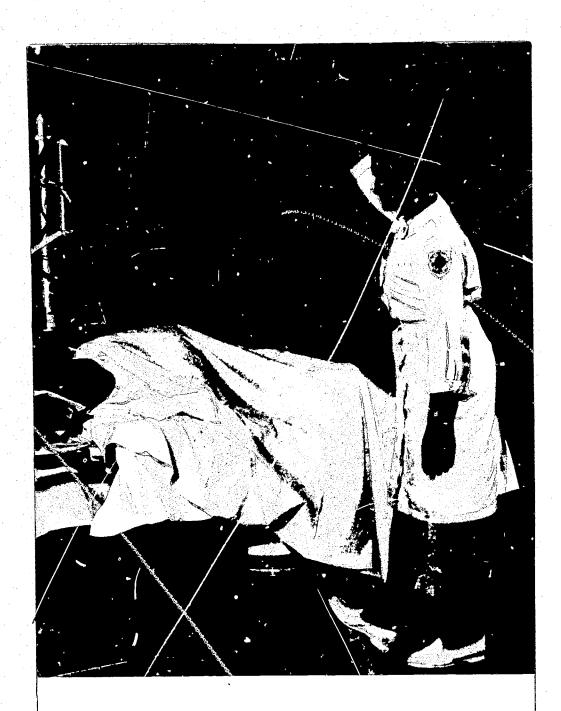
College of Veterinary Medicine University of Illinois Urbana 61803

MICHIGAN

College of Veterinary Medicine Michigan State University East Lansing 48823

INDIANA

School of Veterinary Science and Medicine Purdue University West Lafayette 47907



Students of health careers learn to work with the most modern medical equipment. Here, a radiologic technologist shows how the patient is positioned for radiation therapy.

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For more information write:

HEALTH CAREERS COUNCIL OF ILLINOIS
409 North Michigan Avenue
Chicago, Illinois 606 £ 1